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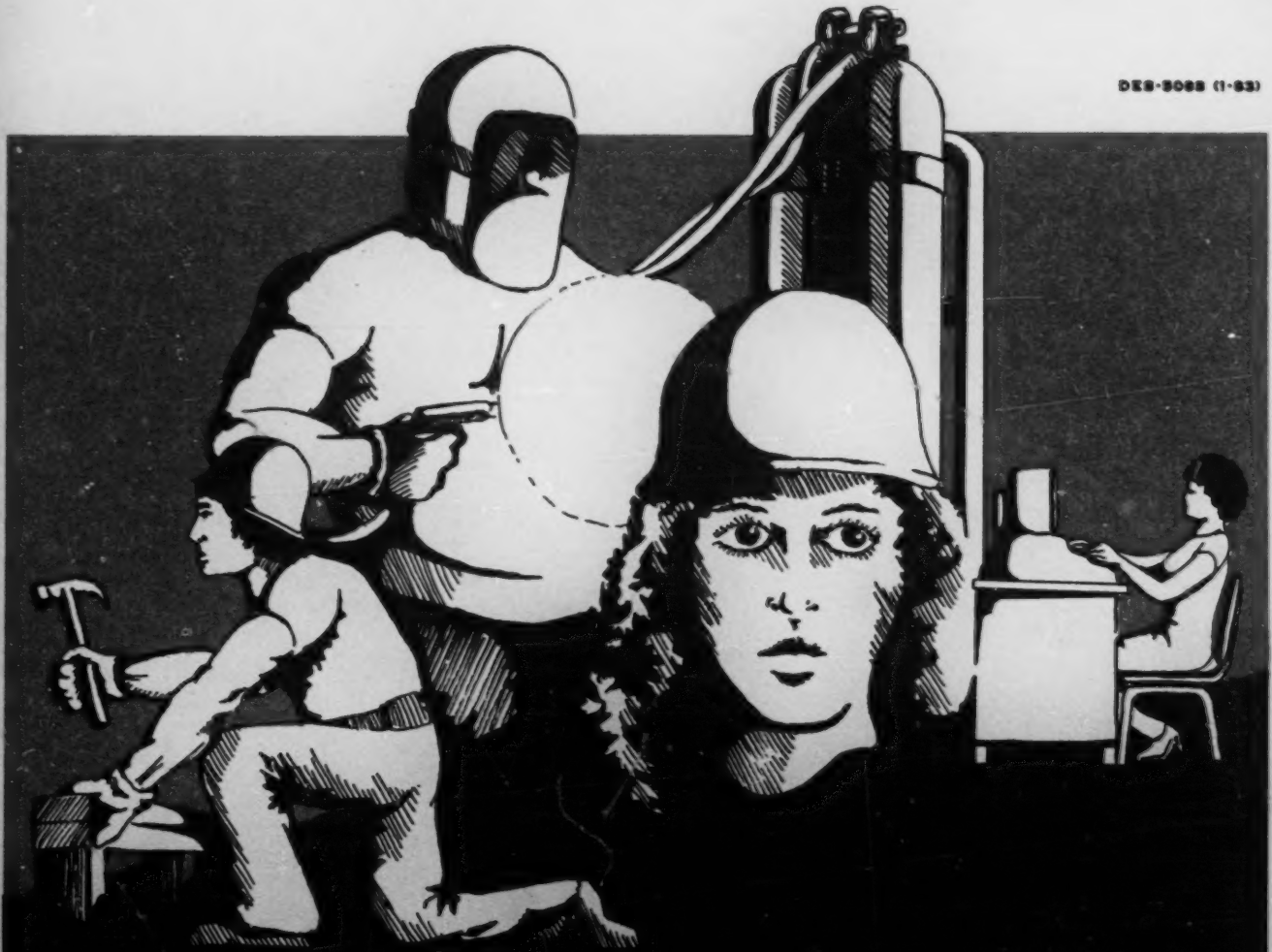
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MINING

JANUARY 1983

DES-8088 (1-83)



ARIZONA OCCUPATIONAL PROFILE

A Labor Market Information Publication of the Arizona Department of Economic Security

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OCCUPATIONAL PROFILE

The value of current and accurate occupational employment information has long been recognized by job seekers, public and private administrators, and those involved in training, recruiting, and counseling. A major source of this information in Arizona is the Occupational Employment Statistics (OES) Program - a cooperative effort between Arizona and the U.S. Bureau of Labor Statistics.

This Occupational Profile is one in a series of publications produced from information developed by the Occupational Employment Statistics survey. These publications represent one of several occupational employment information delivery systems incorporating OES survey data. The survey is used to collect employment data, by county, for over 1,000 occupations in Arizona. From these surveys, which require the cooperation of the Arizona business community, current employment in the various occupations is determined, and from this an occupational outlook is formulated. The Occupational Profiles contain the survey findings and examine, individually, the industries of Arizona.

Surveyed industries include:

- Mining
- Construction
- Manufacturing
- Transportation, Communications, and Public Utilities
- Trade
- Finance, Insurance, and Real Estate
- Services
- Government

For further information, or to comment on any aspect of this program, please write to the address on the back cover.

INDUSTRY INFORMATION

INDUSTRY DESCRIPTION

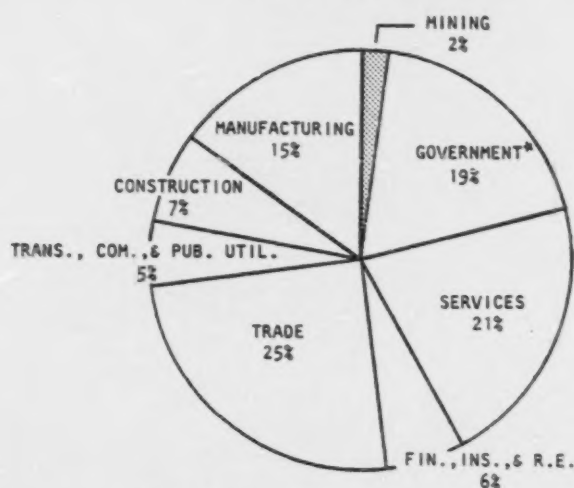
Establishments concerned with mining include firms that extract materials occurring naturally: solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" also includes exploration, quarrying, well operation, milling, and other preparation customarily done at the mine site or as a part of mining activity.

A detailed description of the types of firms surveyed is found in the Standard Industrial Classification (SIC) Manual¹ under codes 10 through 14.

INDUSTRY CHARACTERISTICS

Slightly more than 25,000 of Arizona's 1.2 million workers employed in May 1981 were directly associated with mining. This capital intensive industry's relatively small employment total belies the state's role as a major U.S. producer of mined products and the industry's economic significance to certain Arizona communities. Valued at nearly \$2.5 billion

FIGURE 1: Arizona Nonagricultural Employment by Industry 1981



*includes education

in 1980, Arizona's mineral production accounted for nearly 10 percent of the total U.S. nonfuel mineral output of \$25 billion.

¹Office of Management and Budget, *Standard Industrial Classification Manual*, 1972 Edition, pp. 31-43.

Although only 2 percent of Arizona's employment works in mining, mineral production ranked third in 1981 among major sources of Arizona income - behind manufacturing and tourism.

FIGURE 2: LEADING NONFUEL MINERAL PRODUCING STATES IN 1980

	<u>Value (000's)</u>	<u>Percent of U.S. Total</u>	<u>Principal Minerals</u>
Arizona	\$2,425,714	9.7%	Copper, molybdenum, cement, silver
California	1,885,695	7.5	Cement, sand & gravel, boron minerals
Minnesota	1,782,310	7.1	Iron ore, sand & gravel, stone, lime
Texas	1,734,651	6.9	Cement, sulphur, stone, sand & gravel
Florida	1,508,754	6.0	Phosphate rock, stone, cement, sand & gravel
Michigan	1,485,450	5.9	Iron ore, cement, magnesium compounds, salt
Colorado	1,264,515	5.0	Molybdenum, cement, sand & gravel, silver

Source: U.S. Department of Interior, Bureau of Mines.

State and local government revenues provided by the Arizona copper industry alone totaled more than \$124 million in 1979. School district revenues provided through property tax and the apportionment of educational excise taxes totaled \$53.5 million.

The great majority of Arizona's mine workers are engaged in the extraction of metal ores - ninety-five percent of which are involved in the mining and milling of copper. In 1980, ten of the United States' fifteen leading copper producing mines were located in Arizona. Contributing 66 percent of the total U.S. production of copper in 1979, Arizona reinforced this country's position as the world's leading copper producer - followed by Chile, the U.S.S.R., Canada, Zambia, and Zaire. Arizona's lofty position as a producer of molybdenum, silver, and gold results primarily from efforts to recover these metals as by-products and coproducts of copper production. In 1980, Arizona's leading commodities in the nonmetals were sand and gravel, lime, and crushed stone.

Employing approximately 2,000 in 1981, firms mining fuels and nonmetallic minerals represented 7 percent of Arizona's mine workers. Miners of

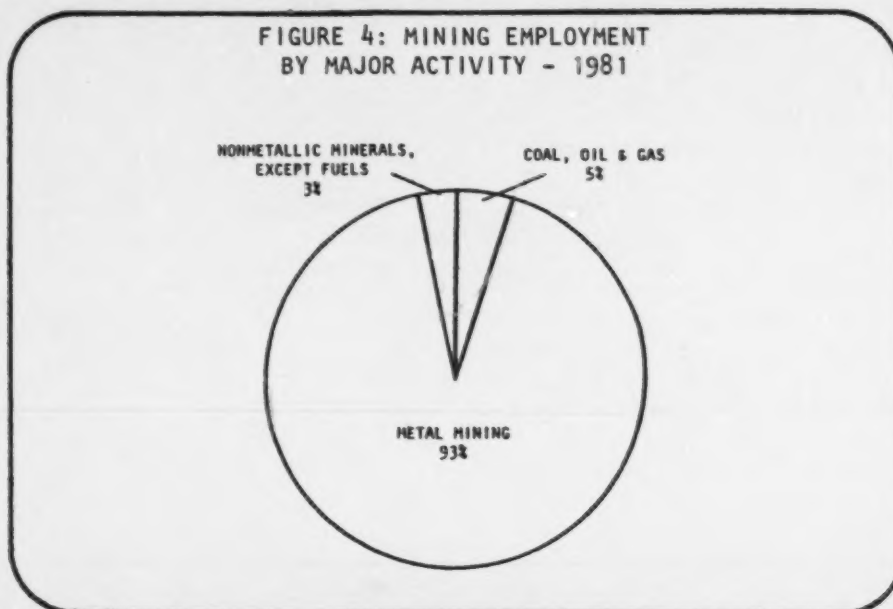
FIGURE 3: ARIZONA'S SHARE OF U.S. OUTPUT 1980

<u>Commodity</u>	<u>% Share of U.S. Output</u>	<u>Rank in Nation</u>
Copper	66 %	1
Molybdenum	25	2
Silver	20	2
Pumice	21	2
Asbestos	NA	3
Gold	11	4

NA - Not available

Source: U.S. Dept. of Int., Bureau of Mines.

bituminous coal accounted for the bulk of this employment and were followed by those mining sand and gravel.



Mining activities, and therefore employment, exist in every Arizona county. Dictated by the location of mineral deposits, most of the mining

**FIGURE 5: MINING EMPLOYMENT
AND MINERAL PRODUCTION BY COUNTY**

COUNTY	MINING EMPLOYMENT MAY 1981	NONFUEL MINERAL PRODUCTION VALUE 1979 (000's)	LEADING MINERALS PRODUCED IN 1979 BY ORDER OF VALUE
Pinal	7,750	\$589,683	Copper, molybdenum, silver, gold, stone
Pima	7,700	914,846	Copper, molybdenum, cement, silver
Gila	2,900	253,024	Copper, molybdenum, silver, sand & gravel
Greenlee	2,650	385,755	Copper, silver, gold, lime, stone, sand & gravel
Navajo	1,150	2,942	Sand & gravel
Yavapai	1,050	199,699	Copper, cement, molybdenum, lime
Mohave	625	52,813	Copper, molybdenum, stone, silver, sand & gravel
Cochise	525	29,479	Copper, lime, stone, sand & gravel, silver
Maricopa	400	W	Sand & gravel, salt, lime, stone, clay
Graham	100	496	Sand & gravel, pumice
Apache	50	1,900	Pumice, sand & gravel, clays, stone
Coconino	50	2,521	Pumice, sand & gravel, stone
Yuma	50	W	Sand & gravel, stone, lead, silver, copper
Santa Cruz		W	Sand & gravel, tungsten
Undistributed ¹		57,323	

W - Withheld to avoid disclosing company proprietary data; included with "Undistributed".

¹ Includes value that cannot be assigned to specific counties and values indicated by W.

Source: U.S. Department of Interior, Bureau of Mines.

employment is concentrated in Pinal and Pima counties where copper deposits are located.

Firms mining copper tend to be much larger than those working other deposits. Although Pinal and Pima counties account for 62 percent of Arizona's mining employment, only 29 percent of all mining firms are found within the borders of these two counties. Arizona's thirty-three copper mining firms employed an average of 664 employees in 1981, while the fifty-five gold and silver mining establishments, for example, employed an average of four employees and had a wider geographical distribution.

Although statewide employment in mining is not substantial, the industry continues to be an important basic component in several counties and is the principal employer in some communities. In 1981, approximately 60 percent of Greenlee County's workers were employed by a mining company. In Pinal County, one of every four workers was employed in mining, while in Gila County the ratio was one in five.

FIGURE 6: VALUE OF MINERAL PRODUCTION BY COUNTY

	<u>1977</u>	<u>1978</u>	<u>1979</u>
Apache \$	W \$	2,315,000 \$	1,900,000
Cochise	24,141,000	20,932,000	29,479,000
Coconino	W	W	2,521,000
Gila	141,722,000	175,340,000	253,024,000
Graham	W	W	496,000
Greenlee	W	264,204,000	385,755,000
Maricopa	W	W	W
Mohave	38,053,000	46,515,000	52,813,000
Navajo	2,815,000	3,294,000	2,942,000
Pima	629,607,000	595,005,000	914,846,000
Pinal	390,180,000	393,127,000	589,683,000
Santa Cruz	629,000	1,457,000	W
Yavapai	76,600,000	148,293,000	199,699,000
Yuma	W	W	W
Undistributed	251,039,000	54,144,000	57,323,000
TOTAL	\$1,554,788,000	\$1,704,633,000	\$2,490,481,000

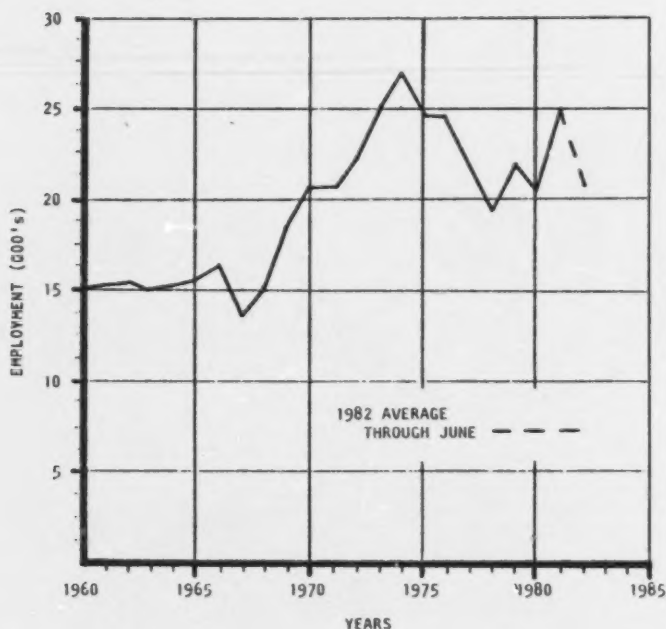
W - Withheld for reasons of disclosure.

Source: U.S. Department of Interior, Bureau of Mines.

INDUSTRY TRENDS

Although the long-term trend of Arizona's mining employment has been upward, it has, over the years, fluctuated greatly as it reacts to international forces affecting the price, demand, and supply of copper. Having doubled its employment between 1967 and 1974, mining employment subsequently followed a roller coaster trail--falling victim to the 1974-75 recession, cresting in 1981, and tumbling again amidst recessionary pressures in 1981-82.

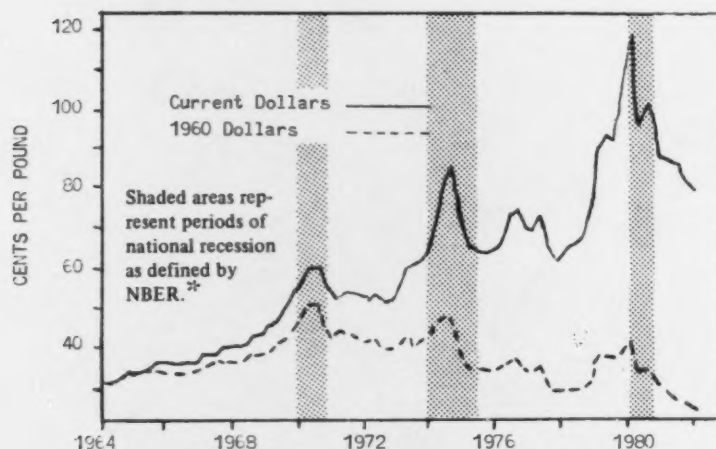
FIGURE 7: AVERAGE ANNUAL EMPLOYMENT IN MINING



Speculation in the commodities markets contributed significantly to the record level prices of copper and precious metals in the first few months of 1980. By years end, however, the effects of the copper strike, depressed automobile and housing markets, and reduced demand in manufacturing all contributed to the decline in copper, gold, and silver production. The following year (1981) saw employment in Arizona's mines grow substantially as the industry rebounded from low employment levels that resulted, to a great extent, from strikes in 1977 and 1980. Such growth (see figure 8) required a severe retrenchment in 1982 however, and

in the face of deteriorating market conditions employment was slashed to less than 19,000 by mid-year. Such employment levels (strike adjusted) had not been seen in the industry since early 1969. Copper prices in recent years ranged from \$1.18 per pound in early 1980 to the mid-60-cents range in 1982 - well below production costs of approximately 90 cents a pound. Adjusted for inflation, copper prices in mid-1982 were lower than at anytime in the past 50 years.

FIGURE 8: PRICE OF COPPER, DOMESTIC DELIVERED



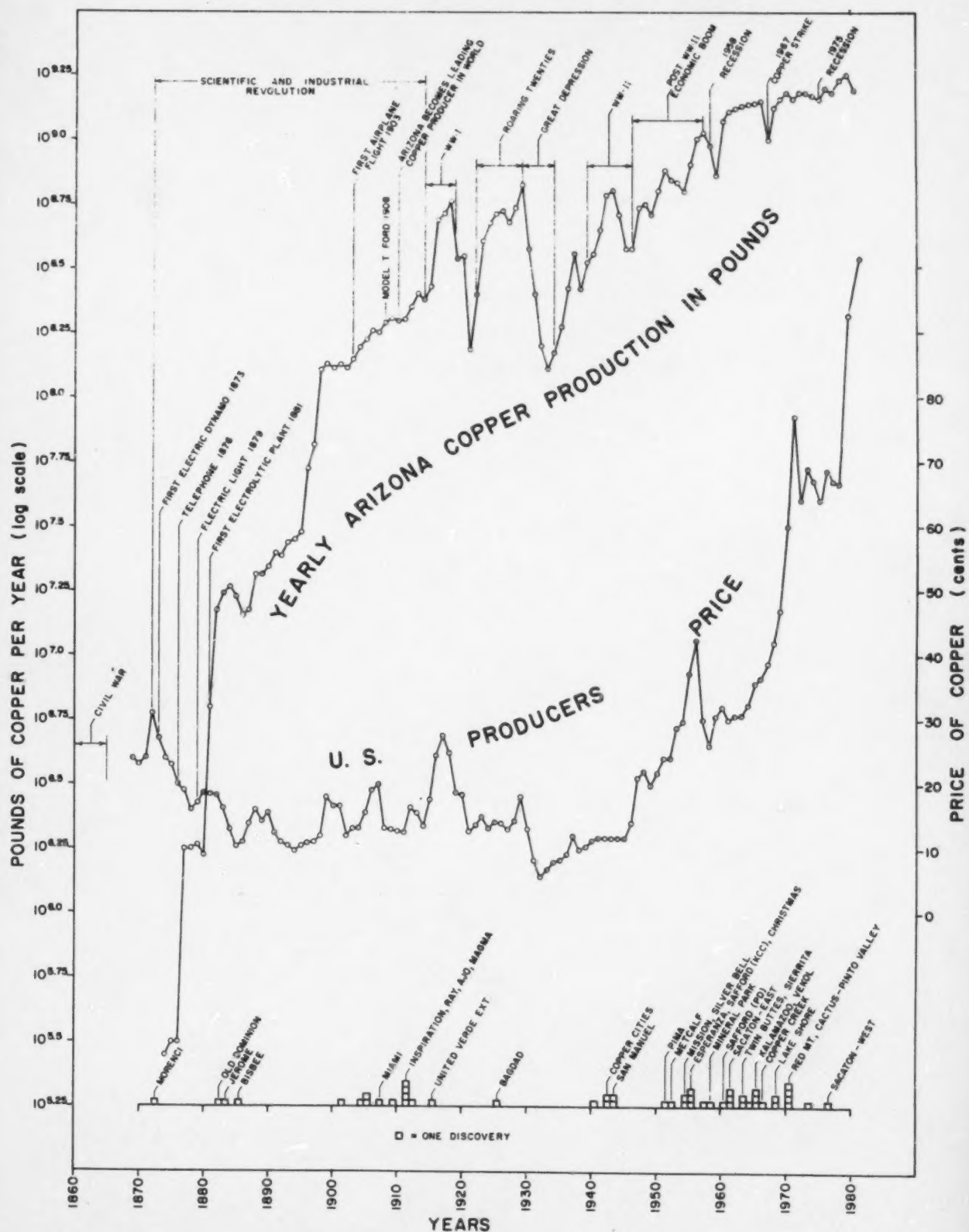
* National Bureau of Economic Research

Source: Division of Economic and Business Research, College of Business and Public Administration, University of Arizona.

Year-to-year employment fluctuations in the mining industry will continue to result from labor strife, international volatility of prices, and the industry's sensitivity to general business conditions. Domestic land use policies, and air and water conservation regulations will also affect mining's employment outlook. Although Arizona's copper industry has expended more than a half-billion dollars in the last decade to meet air quality regulations, compliance with standards of water and air-purity require continued industry attention and resources.

An ever-changing demand for copper will result from worldwide technological and social change. Contributing to a greater demand for copper is the trend to underground power distribution, mass-transit, electric cars, automation, and increased computer use. Resistance of copper alloys to the corrosive effects of seawater, and the metal's high heat transfer properties, make copper ideal for use in distillation processes used in seawater desalinization. Long-term trends inhibiting

FIGURE 9: HISTORY OF ARIZONA COPPER DEVELOPMENT



Source: Arizona Bureau of Geology and Mineral Technology.

copper consumption include the substitution of aluminum and copper-clad aluminum for copper, microminiaturization of communication circuitry, the use of fiber-optics and satellites in communications, and the metal's relatively high cost.

The recession notwithstanding, the long-term trend indicates continued growth in molybdenum production. Mined in conjunction with copper activities, molybdenum has, in recent years, been in strong demand for use principally as a hardening agent in steel, castirons, and superalloys.

FIGURE 10: MINERAL PRODUCTION IN ARIZONA (000's)

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Copper	\$1,234,168	\$1,306,866	\$1,940,211	\$1,709,997
Molybdenum	120,497	W	213,065	341,965
Silver	31,546	35,844	82,941	116,984
Sand and Gravel . .	49,946	69,100	74,716	73,773
Stone	16,495	17,771	21,511	21,610
Lime	15,528	19,743	27,186	23,904
Gold	13,373	17,998	31,316	44,578
Gem Stones	4,500	4,600	4,000	3,100
Pumice	1,226	3,130	2,367	3,228
All Other	67,509	W	93,168	86,575
TOTAL	\$1,554,788	\$1,704,633	\$2,490,481	\$2,425,714

W - Withheld due to reasons of disclosure.

Source: U.S. Department of Interior, Bureau of Mines.

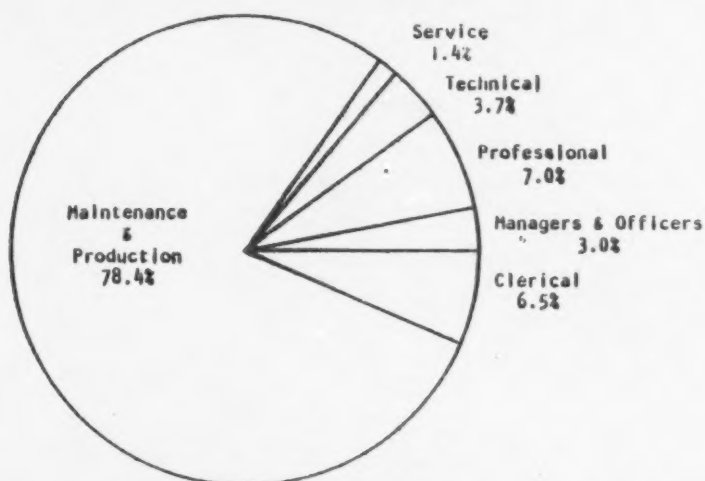
Employment change in copper mining between 1981 and 1985 will be insignificant, as the industry recovers from the low employment levels of 1982. Little growth and few "new" jobs will materialize during the period as mining firms rehire many of those laid-off during the most recent recession. The extent of the recovery, however, is difficult to predict. Expected to ride the coattails of a recovery in construction and manufacturing, and an improvement in the world economy, the eventual health of Arizona's mining industry will further be determined by worldwide copper production levels. Potential mine openings worldwide and efforts to expand exports in certain countries to maximize foreign exchange earnings from government-owned properties, even in times of world oversupply, will tend to keep prices down.

OCCUPATIONAL INFORMATION

OCCUPATIONAL ANALYSIS

Maintenance and production occupations dominate the mining industry - representing three of every four mining workers in Arizona. This occupational category encompasses workers with a wide range of skills and responsibilities and includes such occupations as truck drivers, trades

FIGURE 11: OCCUPATIONS IN MINING
MAY 1981



helpers, heavy equipment operators and electricians. Ranking a distant second and third to maintenance and production workers are professional workers (7 percent) and clerical workers (6.5 percent).

Notable in the professional category is the large number of engineers. Of the 1,700 professional workers reported in mining in May 1981, approximately 600 were engineers. Of the eight types reported, mining engineers and metallurgists/metallurgical engineers were most prominent - accounting for more than half of the total. Mining engineers are primarily involved in determining the location of minerals and ores, and planning for their extraction. Metallurgists and metallurgical engineers, on the other hand, investigate properties and treatments of metals to develop new alloys, production methods, and uses for the metals and alloys. Those involved in extractive metallurgy develop and control processes used in winning metals from their ores.

In the clerical workers category, secretaries, stock clerks and general office clerks are the three largest occupations.

FIGURE 12: MINING OCCUPATIONS
WITH THE GREATEST EMPLOYMENT

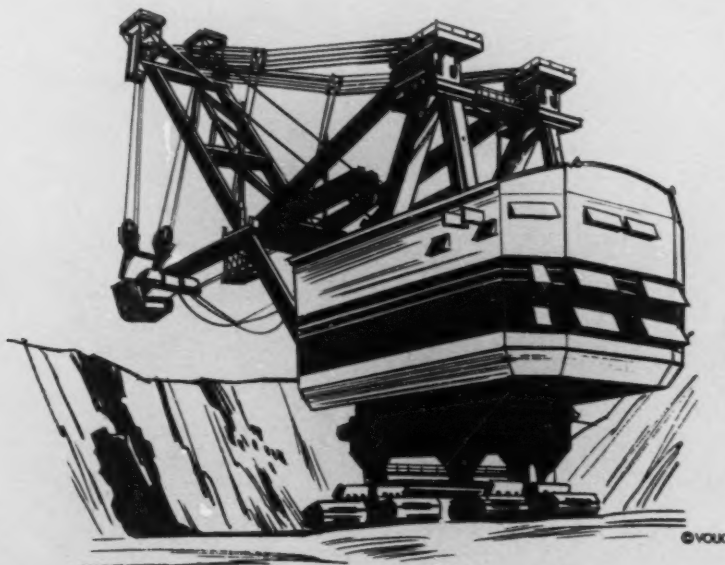
	Employment 1981	Job Openings* 1981-1985
Supervisors, Nonworking	1,846	201
Truck Drivers	1,438	103
Trades Helpers	1,435	158
Blasters	1,296	66
Heavy Equipment Operators	1,123	95
Welders & Flamecutters	825	92
Electricians	813	77
Managers & Officers	735	102
Mechanics, Maintenance	624	56
Mechanics, Mine-Machinery	580	52
Loading-Machine Operators, Underground	485	53
Mill &/or Grinder Operators, Minerals	457	36
Science Technicians	404	34
Mechanics, Diesel	386	33
Geologists & Geophysicists	384	31
Mechanics, Automotive	359	29
Mechanics, Engineering-Equipment	348	28
Drillers, Machine	323	42
Secretaries	318	71
Oilers	264	32
Stock Clerks	263	29
Cement Masons	237	16
General Clerks	225	47
Crane, Derrick & Hoist Operators	209	20
Conveyor Operators/Tenders	204	23
Accountants & Auditors	191	27
Personnel & Labor Relations Specialists	188	22
Brakers, Train	187	19
Plumbers & Pipefitters	182	18
Machinists	179	18
Mining Engineers	178	26
Panelboard Operators	158	18
Carpenters	157	20
Guards & Doorkeepers	155	9
Yard Engineers	152	32

*Does not include turnover

The distribution of workers by major occupational category has not changed significantly since 1978. Based on the data, maintenance and production workers appear to have lost some of their share of total industry employment to professional, technical, managerial, and clerical personnel. Although not conspicuous at this time, this trend should prevail in the long term.

Because little employment growth is expected in the 1981-1985 period, most job opportunities in mining will result from employees leaving the labor force or changing jobs. Projected job openings (excluding turnover) reflect a pattern similar but not identical to the current occupational structure. Approximately 70 percent of the job openings in the industry will transpire in maintenance and production occupations. Clerical workers, with 6.5 percent of the industry's employment, will provide more than 10 percent of the job opportunities. If openings resulting from turnover were included, the clerical workers category would further increase its share of job openings, as these workers generally have a higher turnover rate.

Supervisors, trades helpers, truck drivers, and mechanics will see the greatest number of job opportunities in the maintenance and production occupations, while secretaries, general office clerks, and file clerks are expected to lead the clerical openings. In the professional class, relatively strong demand will continue for engineers. As the supply of high-grade ores diminishes, engineers will be required to develop new ways of recycling solid waste materials and processing low-grade ores now regarded as unprofitable to mine. More technologically-advanced mining systems and further enforcement of mine health and safety regulations will also increase the need for engineers and technical personnel.



OCCUPATIONAL STRUCTURE

The following thirteen tables provide employment estimates and projected employment and job openings for the counties and the state. Graham and Greenlee counties have been combined due to their close proximity, similar economies, and size.

When using the data, please note the following:

- 1) The data reflect full and part-time wage and salary employment only, and do not include self-employed or unpaid family workers.
- 2) Total job openings represent the number of openings due to growth of the industry and separations from the labor force. They do not account for labor turnover, i.e., openings created when a worker changes jobs, leaving the job to be filled by someone else. These vacancies are often the largest source of job openings.
- 3) The projection technique does not possess the degree of accuracy that may be implied by small employment and demand figures.
- 4) To eliminate the possible disclosure of confidential employer information, occupations have been added to the appropriate "all other" or residual category if: less than three firms reported a single occupation; one firm reported more than 50 percent of the occupational estimate; two firms combined reported more than 75 percent of the occupational estimate. In certain cases, releases have been obtained from large employers to waive the confidentiality criteria.
- 5) Mining employment in Apache, Coconino, Santa Cruz, and Yuma counties is relatively insignificant; therefore, tables for these counties are excluded. Data for these counties are included in the statewide table, however.

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

STATEWIDE

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	735	3.0	727	102
TOTAL PROFESSIONAL WORKERS	1,724	7.0	1,683	171
Chemical Engineers	20	.1	21	1
Civil Engineers	30	.1	29	4
Industrial Engineers	31	.1	31	2
Mechanical Engineers	53	.2	53	3
Metal Engineers	143	.6	142	7
Mining Engineers	178	.7	172	26
Safety Engineers	61	.2	60	5
All Other Engineers	86	.3	83	5
Chemists	133	.5	131	15
Geologists & Geophysicists	384	1.5	381	31
All Other Natural & Math Scientists	6	.0	6	1
Systems Analysts, EDP	59	.2	58	3
Purchasing Agents &/or Buyers	83	.3	81	10
Accountants & Auditors	191	.8	188	27
Personnel & Labor Relations Specialists	188	.8	186	22
All Other Professional Workers	78	.3	61	9
TOTAL TECHNICAL WORKERS	917	3.7	906	77
Computer Programmers	49	.2	49	3
Drafters	139	.5	137	11
Surveyors	80	.3	79	5
Mechanical Engineering Technicians	13	.0	13	0
Civil Engineering Technicians	8	.0	8	1
All Other Engineering Technicians	99	.4	97	10
Science Technicians	404	1.6	399	34
All Other Technical Workers	125	.5	124	13
TOTAL SERVICE WORKERS	349	1.4	344	43
Janitors, Porters & Cleaners	107	.4	106	19
Guards & Doorkeepers	155	.6	152	9
Food Service Workers	41	.2	40	7
Supervisors, Nonworking-Service	10	.0	10	1
All Other Service Workers	36	.1	36	7
TOTAL MAINTENANCE & PRODUCTION WORKERS	19,432	78.4	19,230	1,917
Mechanics, Automotive	359	1.4	353	29
Mechanics, Diesel	386	1.6	385	33
Mechanics, Engineering-Equipment	348	1.4	344	28
Mechanics, Mine-Machinery	580	2.3	579	52
Mechanics, Maintenance	624	2.5	619	56
All Other Mechanics & Repairers	217	.9	215	19
Truck Drivers	1,438	5.8	1,423	103
Blasters	1,296	5.2	1,272	66
Headers, Bottomers, Car Droppers &/or Cagers	51	.2	50	7
Brakers, Train	187	.8	183	19
Carpenters	157	.6	154	20
Cement Masons	237	1.0	232	16
Crane, Derrick & Hoist Operators	209	.8	205	20
Delivery & Route Workers	20	.1	20	1
Dispatchers, Mine-Car	25	.1	25	2
Drier Operators, Coal or Ore	25	.1	25	3
Drillers, Hand	30	.1	31	4
Drillers, Machine	323	1.3	320	42
Dump Operators	27	.1	27	4
Electricians	813	3.3	807	77
Supervisors, Nonworking	1,846	7.5	1,832	201
Heavy Equipment Operators	1,123	4.5	1,119	95
Riggers	19	.1	19	2
Industrial Truck Operators	52	.2	51	4
Lampkeepers/Repairers	12	.0	12	1

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

STATEWIDE (CONTO.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
Loading-Machine Operators, Underground	485	2.0	478	53
Machinists	179	.7	177	18
Maintenance Repairers, General Utility	147	.6	146	14
Trades Helpers	1,435	5.8	1,419	158
Millwrights	44	.2	44	6
Dinky Operators	4	.0	4	1
Oilers	264	1.1	266	32
Painters, Maintenance	99	.4	98	12
Panelboard Operators	158	.6	156	18
Plumbers &/or Pipefitters	182	.7	179	18
Reagent Tenders	68	.3	64	8
Sheet Metal Workers	10	.0	10	1
Shuttle-Car Operators	60	.2	59	7
Stationary Boiler Firers	5	.0	5	1
Stationary Engineers	35	.1	35	4
Welders & Flamecutters	825	3.3	817	92
Surveyor Helpers	47	.2	47	5
Belt Repairers	23	.1	23	3
Samplers &/or Test Preparers	122	.5	121	13
Separator Tenders	25	.1	25	2
Conveyor Operators/Tenders	204	.8	201	23
Yard Engineers	152	.6	150	32
Mill &/or Grinder Operators, Minerals	457	1.8	453	36
Pump Operators	53	.2	53	7
Mixers &/or Blenders, Chemicals	17	.1	17	2
All Other Skilled Craft Workers	301	1.2	295	30
All Other Operatives & Semiskilled Workers	747	3.0	738	85
All Other Laborers & Unskilled Workers	2,880	11.6	2,848	332
TOTAL CLERICAL WORKERS	1,607	6.5	1,587	297
Bookkeeping &/or Billing Machine Operators	1	.0	1	0
Computer Operators	40	.2	40	4
Keypunch Operators	42	.2	41	9
Accounting Clerks	117	.5	116	22
Bookkeepers, Hand	21	.1	21	4
Cashiers	6	.0	6	1
File Clerks	117	.5	116	31
General Clerks, Office	225	.9	224	47
Mail Clerks	3	.0	3	1
Order Clerks	29	.1	29	6
Payroll &/or Timekeeping Clerks	54	.2	54	10
Personnel Clerks	47	.2	46	13
Receptionists	10	.0	10	3
Secretaries	318	1.3	314	71
Switchboard Operators	9	.0	9	2
Switchboard Operators-Receptionists	19	.1	19	5
Typists	51	.2	50	12
Clerical Supervisors	39	.2	39	5
All Other Office Clerical Workers	41	.2	34	8
Production Clerks &/or Coordinators	59	.2	59	6
Shipping &/or Receiving Clerks	42	.2	41	4
Weighers, Record-Keeping	38	.2	37	4
Stock Clerks	263	1.1	263	29
All Other Plant Clerical Workers	16	.1	15	0
TOTAL SALES WORKERS	12	.0	12	2
TOTAL ALL OCCUPATIONS	24,776	100.0	24,489	2,609

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

STATEWIDE (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Petroleum Engineers

All Other Professional Workers
Lawyers
Lease Buyers

CLERICAL WORKERS

All Other Office Clerical Workers
Stenographers

All Other Plant Clerical Workers
Shipping Packers
Dispatchers

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Cable Drillers
Dredge Operators
Fire Bosses
Rock Splitters, Quarry
Rotary-Drill Operators
Shooters &/or Seismograph Shooters

All Other Operatives & Semiskilled Workers
Inspectors
Shaker Tenders
Rotary-Drill Operator Helpers
Tipple Operators

All Other Laborers & Unskilled Workers
Production Packagers
Track Layers

SALES WORKERS

Sales Reps., Agents &/or Associates
Sales Clerks (Exc. Cashiers)

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

COCHISE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	26	9	0	3	3
TOTAL PROFESSIONAL WORKERS	112	37	0	11	11
Civil Engineers	1	0	0	0	0
Mechanical Engineers	4	1	0	0	0
Metal Engineers	1	0	0	0	0
Mining Engineers	12	4	0	1	1
All Other Engineers	8	6	0	1	1
Chemists	3	1	0	0	0
Geologists & Geophysicists	12	4	0	1	1
Systems Analysts, EDP	3	1	0	0	0
Purchasing Agents &/or Buyers	17	5	0	2	2
Accountants & Auditors	27	8	0	3	3
Personnel & Labor Relations Specialists	1	0	0	0	0
All Other Professional Workers	23	7	0	3	3
TOTAL TECHNICAL WORKERS	55	17	0	3	3
Computer Programmers	4	1	0	0	0
Drafters	13	4	0	1	1
Surveyors	3	1	0	0	0
Civil Engineering Technicians	1	0	0	0	0
All Other Engineering Technicians	5	2	0	0	0
Science Technicians	29	9	0	2	2
TOTAL SERVICE WORKERS	22	7	0	3	3
Janitors, Porters & Cleaners	5	2	0	1	1
Supervisors, Nonworking-Service	1	0	0	0	0
All Other Service Workers	16	5	0	2	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	97	32	0	7	7
Mechanics, Maintenance	1	0	0	0	0
All Other Mechanics & Repairers	1	0	0	0	0
Truck Drivers	10	3	0	1	1
Heavy Equipment Operators	21	6	0	1	1
Maintenance Repairers, General Utility	1	0	0	0	0
Reagent Tenders	5	2	0	0	0
Welders & Flamecutters	15	5	0	1	1
All Other Skilled Craft Workers	16	7	0	2	2
All Other Operatives & Semiskilled Workers	3	1	0	0	0
All Other Laborers & Unskilled Workers	24	8	0	2	2
TOTAL CLERICAL WORKERS	81	24	0	15	15
Computer Operators	3	1	0	0	0
Keypunch Operators	3	1	0	1	1
Stenographers	9	3	0	2	2
Accounting Clerks	13	4	0	2	2
File Clerks	1	0	0	0	0
Secretaries	14	4	0	3	3
Switchboard Operators-Receptionists	1	0	0	0	0
Typists	19	6	0	4	4
Clerical Supervisors	7	2	0	1	1
All Other Office Clerical Workers	10	3	0	2	2
All Plant Clerical Workers	1	0	0	0	0
TOTAL ALL OCCUPATIONS	393	126	0	42	42

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

COCHISE COUNTY (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Petroleum Engineers

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Blasters
Carpenters
Drillers, Machine
Electricians
Supervisors, Nonworking
Rotary-Drill Operators

CLERICAL WORKERS

All Other Office Clerical Workers
Personnel Clerks

SERVICE WORKERS

All Other Service Workers
Guards & Doorkeepers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

GILA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	91	89	0	13	13
TOTAL TECHNICAL WORKERS	267	264	0	28	28
Metal Engineers	21	21	0	1	1
Mining Engineers	26	25	0	4	4
All Other Engineers	51	51	0	3	3
Chemists	52	51	0	6	6
Geologists & Geophysicists	20	20	0	2	2
Purchasing Agents &/or Buyers	12	12	0	2	2
Accountants & Auditors	42	41	0	4	4
All Other Professional Workers	43	43	0	4	4
TOTAL TECHNICAL WORKERS	94	93	0	8	8
Drafters	10	10	0	1	1
All Other Engineering Technicians	24	24	0	2	2
Science Technicians	57	56	0	5	5
All Other Technicians	3	3	0	0	0
TOTAL SERVICE WORKERS	32	32	0	4	4
TOTAL MAINTENANCE & PRODUCTION WORKERS	2,203	2,162	0	209	209
Mechanics, Automotive	164	161	0	13	13
Truck Drivers	242	237	0	17	17
Carpenters	27	26	0	3	3
Electricians	87	85	0	8	8
Supervisors, Nonworking	326	320	0	35	35
Heavy Equipment Operators	112	110	0	9	9
Trades Helpers	61	60	0	7	7
Oilers	8	8	0	1	1
Plumbers &/or Pipefitters	54	53	0	5	5
Welders & Flamecutters	97	95	0	11	11
Mill &/or Grinder Operators, Minerals	67	66	0	5	5
All Other Skilled Craft Workers	384	378	0	34	34
All Other Operatives & Semiskilled Workers	286	281	0	30	30
All Other Laborers & Unskilled Workers	288	282	0	31	31
TOTAL CLERICAL WORKERS	212	209	0	39	39
All Office Machine Operators	13	13	0	2	2
Accounting Clerks	15	15	0	3	3
General Clerks, Office	52	51	0	11	11
Payroll &/or Timekeeping Clerks	12	12	0	2	2
Secretaries	28	27	0	6	6
Switchboard Operators-Receptionists	6	6	0	2	2
All Other Office Clerical Workers	34	34	0	7	7
Stock Clerks	36	35	0	4	4
All Other Plant Clerical Workers	16	16	0	2	2
TOTAL SALES WORKERS	4	4	0	0	0
TOTAL ALL OCCUPATIONS	2,903	2,853	0	301	301

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Civil Engineers
Industrial Engineers
Mechanical Engineers
Safety Engineers

PROFESSIONAL WORKERS (CONTD.)

All Other Professional Workers
Systems Analysts, EDP
Personnel & Labor Relations Specialists

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

GILA COUNTY (CONTD.)

TECHNICAL WORKERS

All Other Engineering Technicians
Computer Programmers
Surveyors

SERVICE WORKERS

All Other Service Workers
Janitors, Porters & Cleaners
Guards & Doorkeepers

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Mechanics, Diesel
Mechanics, Engineering-Equipment
Mechanics, Mine-Machinery
Mechanics, Maintenance
Blasters
Brakers, Train
Cement Masons
Dispatchers, Mine-Car
Drillers, Hand
Drillers, Machine
Fire Bosses
Riggers
Machinists
Reagent Tenders
Sheet Metal Workers
Yard Engineers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Crane, Derrick & Hoist Operators
Delivery & Route Workers
Industrial Truck Operators
Shuttle-Car Operators

Surveyor Helpers
Pump Operators

All Other Laborers & Unskilled Workers
Painters, Maintenance
Samplers &/or Test Preparers

CLERICAL WORKERS

All Other Office Machine Operators
Computer Operators
Key punch Operators

All Other Clerical Workers
Personnel Clerks
Typists
Clerical Supervisors

All Other Plant Clerical Workers
Production Clerks &/or Coordinators
Shipping &/or Receiving Clerks
Weighers, Record-Keeping

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

GRAHAM AND GREENLEE COUNTIES

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	36	35	0	5	5
TOTAL PROFESSIONAL WORKERS	74	74	0	7	7
Civil Engineers	10	10	0	1	1
Industrial Engineers	1	1	0	0	0
Mechanical Engineers	1	1	0	0	0
Metal Engineers	5	5	0	0	0
Mining Engineers	10	10	0	1	1
All Other Engineers	3	3	0	0	0
Chemists	18	18	0	2	2
Geologists & Geophysicists	9	9	0	1	1
Systems Analysts, EDP	3	3	0	0	0
Purchasing Agents &/or Buyers	2	2	0	0	0
Accountants & Auditors	4	4	0	1	1
Personnel & Labor Relations Specialists	7	7	0	1	1
All Other Professional Workers	1	1	0	0	0
TOTAL TECHNICAL WORKERS	40	40	0	2	2
Computer Programmers	5	5	0	0	0
Drafters	16	16	0	1	1
Surveyors	7	7	0	0	0
Civil Engineering Technicians	2	2	0	0	0
All Other Engineering Technicians	4	4	0	0	0
Science Technicians	1	1	0	0	0
All Other Technicians	5	5	0	1	1
TOTAL SERVICE WORKERS	57	56	0	6	6
Janitors, Porters & Cleaners	29	28	0	5	5
Guards & Doorkeepers	28	28	0	1	1
TOTAL MAINTENANCE & PRODUCTION WORKERS	2,343	2,299	0	249	249
Mechanics, Automotive	15	15	0	1	1
Mechanics, Diesel	14	14	0	0	0
Mechanics, Engineering - Equipment	18	18	0	1	1
Mechanics, Mine-Machinery	43	42	0	4	4
Mechanics, Maintenance	30	29	0	2	2
All Other Mechanics & Repairers	62	61	0	6	6
Truck Drivers	88	86	0	6	6
Blasters	17	17	0	1	1
Headers, Bottomers, Car Droppers &/or Cagers	6	6	0	1	1
Carpenters	35	34	0	4	4
Cement Masons	3	3	0	0	0
Crane, Derrick & Hoist Operators	32	31	0	3	3
Dispatchers, Mine-Car	14	14	0	1	1
Drier Operators, Coal or Ore	9	9	0	1	1
Electricians	112	110	0	10	10
Supervisors, Nonworking	274	269	0	30	30
Loading-Machine Operators, Underground	59	58	0	7	7
Machinists	29	28	0	3	3
Maintenance Repairers, General Utility	71	70	0	6	6
Millwrights	29	28	0	4	4
Dinkey Operators	2	2	0	0	0
Oilers	19	19	0	2	2
Painters, Maintenance	40	39	0	5	5
Plumbers &/or Pipefitters	29	28	0	3	3
Sheet Metal Workers	5	5	0	0	0
Stationary Boiler Firers	2	2	0	0	0
Stationary Engineers	12	12	0	1	1
Track Layers	125	123	0	14	14
Welders & Flamecutters	65	64	0	8	8
Surveyor Helpers	6	6	0	1	1
Sampler &/or Test Preparers	5	5	0	1	1
Conveyor Operators/Tenders	34	33	0	4	4

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

GRAHAM AND GREENLEE COUNTIES (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Yard Engineers	96	94	0	20	20
Mill &/or Grinder Operators Minerals	56	55	0	4	4
Pump Operators	10	10	0	1	1
All Other Skilled Craft Workers	32	32	0	4	4
All Other Operatives & Semiskilled Workers	105	103	0	8	8
All Other Laborers & Unskilled Workers	740	725	0	82	82
TOTAL CLERICAL WORKERS	207	205	0	43	43
Bookkeeping &/or Billing Machine Operators	1	1	0	0	0
Computer Operators	3	3	0	0	0
Keypunch Operators	2	2	0	0	0
Accounting Clerks	7	7	0	1	1
Bookkeepers, Hand	1	1	0	0	0
Cashiers	1	1	0	0	0
File Clerks	74	73	0	20	20
General Clerks, Office	5	5	0	1	1
Mail Clerks	1	1	0	0	0
Payroll &/or Timekeeping Clerks	6	6	0	1	1
Personnel Clerks	3	3	0	1	1
Receptionists	3	3	0	1	1
Secretaries	59	58	0	13	13
Switchboard Operators	1	1	0	0	0
Clerical Supervisors	5	5	0	1	1
Production Clerks &/or Coordinators	17	17	0	2	2
Shipping Packers	2	2	0	0	0
Shipping &/or Receiving Clerks	2	2	0	0	0
Stock Clerks	6	6	0	1	1
Dispatchers	8	8	0	1	1
TOTAL ALL OCCUPATIONS	2,757	2,709	0	312	312

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Drillers, Machine

All Other Operatives and Semiskilled Workers
Heavy Equipment Operators

All Other Laborers and Unskilled Workers
Trades Helpers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

MARICOPA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	69	80	11	12	23
TOTAL PROFESSIONAL WORKERS	79	126	48	10	58
All Engineers	22	30	8	3	11
Geologists & Geophysicists	23	22	0	2	2
All Other Professional Workers	34	74	40	5	45
TOTAL TECHNICAL WORKERS	14	49	35	4	39
TOTAL SERVICE WORKERS	10	23	13	3	16
TOTAL MAINTENANCE & PRODUCTION WORKERS	172	167	0	18	18
All Mechanics & Repairers	8	8	0	1	1
Heavy Equipment Operators	52	50	0	4	4
Loading-Machine Operators, Underground	23	22	0	3	3
All Skilled Trades Helpers	14	13	0	2	2
All Skilled Craft Workers	56	55	0	6	6
All Other Operatives & Semiskilled Workers	19	19	0	2	2
TOTAL CLERICAL WORKERS	84	123	39	25	64
All Office Machine Operators	3	7	4	1	5
General Clerks, Office	12	12	0	3	3
Secretaries	33	41	8	9	17
All Other Office Clerical Workers	22	49	27	11	38
Weighers	13	13	0	1	1
All Other Plant Clerical Workers	1	1	0	0	0
TOTAL ALL OCCUPATIONS	428	568	146	72	218

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Engineers
 Mechanical Engineers
 Mining Engineers
 Petroleum Engineers

All Other Professional Workers
 Systems Analysts, EDP
 Purchasing Agents &/or Buyers
 Accountants & Auditors
 Lawyers
 Lease Buyers
 Personnel & Labor Relations Specialists

TECHNICAL WORKERS

Computer Programmers
Drafters

SERVICE WORKERS

Janitors, Porters & Cleaners
Supervisors, Nonworking-Service

MAINTENANCE & PRODUCTION WORKERS

All Mechanics & Repairers
 Mechanics, Maintenance

All Skilled Craft Workers
 Cable Drillers
 Supervisors, Nonworking
 Riggers
 Maintenance Repairers, General Utility
 Panelboard Operators
 Rotary-Drill Operators
 Shooters &/or Seismograph Shooters
 Welders & Flamecutters

CLERICAL WORKERS

All Other Office Clerical Workers
 Accounting Clerks
 Bookkeepers, Hand
 Payroll &/or Timekeeping Clerks

**ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING**

MOHAVE COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	20	20	0	3	3
TOTAL PROFESSIONAL WORKERS	68	67	0	4	4
Chemical Engineers	1	1	0	0	0
Industrial Engineers	1	1	0	0	0
Mechanical Engineers	2	2	0	0	0
Metal Engineers	1	1	0	0	0
Mining Engineers	2	2	0	0	0
Safety Engineers	2	2	0	0	0
All Other Engineers	2	2	0	0	0
Chemists	1	1	0	0	0
Geologists & Geophysicists	51	50	0	4	4
Purchasing Agents &/or Buyers	1	1	0	0	0
Accountants & Auditors	2	2	0	0	0
Personnel & Labor Relations Specialists	2	2	0	0	0
TOTAL TECHNICAL WORKERS	20	20	0	2	2
Computer Programmers	1	1	0	0	0
Drafters	2	2	0	0	0
Surveyors	1	1	0	0	0
All Other Engineering Technicians	6	6	0	1	1
All Other Technicians	10	10	0	1	1
TOTAL SERVICE WORKERS	24	24	0	1	1
Janitors, Porters & Cleaners	2	2	0	0	0
Guards & Doorkeepers	22	22	0	1	1
TOTAL MAINTENANCE & PRODUCTION WORKERS	443	435	0	41	41
Mechanics, Automotive	3	3	0	0	0
Mechanics, Diesel	12	12	0	1	1
Mechanics, Engineering-Equipment	5	5	0	0	0
Mechanics, Mine-Machinery	6	6	0	1	1
Mechanics, Maintenance	35	34	0	3	3
All Other Mechanics & Repairers	5	5	0	0	0
Truck Drivers	32	31	0	2	2
Carpenters	1	1	0	0	0
Drillers, Machine	5	5	0	1	1
Dump Operators	2	2	0	0	0
Electricians	19	19	0	2	2
Supervisors, Nonworking	43	42	0	5	5
Heavy Equipment Operators	21	21	0	2	2
Industrial Truck Operators	2	2	0	0	0
Machinists	3	3	0	0	0
Trades Helpers	29	28	0	3	3
Oilers	10	10	0	1	1
Painters, Maintenance	3	3	0	0	0
Panelboard Operators	2	2	0	0	0
Plumbers &/or Pipefitters	3	3	0	0	0
Production Packagers, Hand or Machine	1	1	0	0	0
Reagent Tenders	3	3	0	0	0
Welders & Flamecutters	37	36	0	4	4
Samplers &/or Test Preparers	3	3	0	0	0
Mill &/or Grinder Operators, Minerals	39	38	0	3	3
Pump Operators	3	3	0	0	0
All Other Skilled Craft Workers	15	15	0	1	1
All Other Operatives & Semiskilled Workers	22	22	0	3	3
All Other Laborers & Unskilled Workers	79	77	0	9	9
TOTAL CLERICAL WORKERS	24	24	0	3	3
Computer Operators	1	1	0	0	0
Keypunch Operators	1	1	0	0	0
Accounting Clerks	2	2	0	0	0

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

MOHAVE COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
General Clerks, Office	6	6	0	1	1
Order Clerks	1	1	0	0	0
Payroll &/or Timekeeping Clerks	1	1	0	0	0
Personnel Clerks	2	2	0	1	1
Secretaries	1	1	0	0	0
Switchboard Operators-Receptionists	1	1	0	0	0
Production Clerks &/or Coordinators	1	1	0	0	0
Shipping &/or Receiving Clerks	1	1	0	0	0
Stock Clerks	6	6	0	1	1
TOTAL ALL OCCUPATIONS	599	590	0	54	54

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Blasters

All Other Operatives & Semiskilled Workers
Crane, Derrick & Hoist Operators
Conveyor Operators/Tenders

**ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING**

NAVAJO COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	32	34	2	5	7
TOTAL PROFESSIONAL WORKERS	32	34	2	3	5
All Engineers	9	9	0	1	1
All Natural & Math Scientists	3	3	0	0	0
All Other Professional Workers	20	22	2	2	4
TOTAL TECHNICAL WORKERS	26	28	2	2	4
All Engineering Technicians	13	14	1	1	2
All Other Technicians	13	14	1	1	2
TOTAL SERVICE WORKERS	10	10	0	2	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	933	991	58	93	151
All Mechanics & Repairers	86	91	5	8	13
Truck Drivers	19	20	1	1	2
Supervisors, Nonworking	103	110	7	11	18
All Other Skilled Craft Workers	158	168	10	14	24
All Other Operatives & Semiskilled Workers	393	417	24	39	63
All Other Laborers & Unskilled Workers	174	185	11	20	31
TOTAL CLERICAL WORKERS	77	82	5	12	17
All Office Clerical Workers	35	37	2	7	9
All Plant Clerical Workers	42	45	3	5	8
TOTAL ALL OCCUPATIONS	1,110	1,179	69	117	186

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Engineers
 Mining Engineers
 Safety Engineers

All Other Professional Workers
 Systems Analysts, EDP
 Purchasing Agents &/or Buyers
 Accountants & Auditors
 Personnel & Labor Relations Specialists

TECHNICAL WORKERS

All Engineering Technicians
 Surveyors

All Other Technicians
 Science Technicians

SERVICE WORKERS

Janitors, Porters & Cleaners

MAINTENANCE & PRODUCTION WORKERS

All Mechanics & Repairers
 Mechanics, Diesel
 Mechanics, Engineering-Equipment
 Mechanics, Mine-Machinery

All Other Skilled Craft Workers
 Blasters

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Drillers, Machine
Electricians
Riggers
Machinists
Maintenance Repairers, General Utility
Rock Splitters, Quarry
Stationary Engineers

All Other Operatives & Semiskilled Workers
 Delivery & Route Workers
 Heavy Equipment Operators
 Inspectors
 Loading-Machine Operators, Underground
 Tipple Operators
 Welders & Flamecutters
 Surveyor Helpers
 Conveyor Operators/Tenders
 Pump Operators

All Other Laborers & Unskilled Workers
 Trades Helpers
 Oilers

CLERICAL WORKERS

All Office Clerical Workers
 Computer Operators
 Accounting Clerks
 Bookkeepers, Hand
 General Clerks, Office
 Mail Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

NAVAJO COUNTY (CONTD.)

CLERICAL WORKERS (CONTD.)

Payroll &/or Timekeeping Clerks
Personnel Clerks
Secretaries
Typists
Clerical Supervisors

All Plant Clerical Workers
Production Clerks &/or Coordinators
Weighers, Record-Keeping
Stock Clerks

**ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING**

PIMA COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	271	273	2	38	40
TOTAL PROFESSIONAL WORKERS	590	591	1	55	56
Chemical Engineers	6	6	0	0	0
Civil Engineers	4	4	0	1	1
Industrial Engineers	21	21	0	2	2
Mechanical Engineers	30	30	0	2	2
Metal Engineers	67	67	0	3	3
Mining Engineers	64	64	0	9	9
Safety Engineers	24	24	0	2	2
All Other Engineers	6	6	0	0	0
Chemists	42	42	0	5	5
Geologists & Geophysicists	201	202	1	16	17
All Other Natural & Math Scientists	4	4	0	0	0
Systems Analysts, EDP	15	15	0	1	1
Purchasing Agents &/or Buyers	23	23	0	3	3
Accountants & Auditors	49	49	0	7	7
Personnel & Labor Relations Specialists	25	25	0	3	3
All Other Professional Workers	9	9	0	1	1
TOTAL TECHNICAL WORKERS	294	295	1	25	26
Computer Programmers	22	22	0	1	1
Drafters	48	48	0	4	4
Surveyors	15	15	0	1	1
All Other Engineering Technicians	56	56	0	6	6
Science Technicians	121	122	1	10	11
All Other Technicians	32	32	0	3	3
TOTAL SERVICE WORKERS	76	76	0	9	9
Janitors, Porters & Cleaners	32	32	0	6	6
Guards & Doorkeepers	44	44	0	3	3
TOTAL MAINTENANCE & PRODUCTION WORKERS	6,042	6,075	33	609	642
Mechanics, Automotive	86	87	1	7	8
Mechanics, Diesel	236	237	1	20	21
Mechanics, Engineering-Equipment	123	124	1	10	11
Mechanics, Mine-Machinery	153	154	1	14	15
Mechanics, Maintenance	307	309	2	28	30
All Other Mechanics & Repairers	80	80	0	7	7
Truck Drivers	600	604	4	43	47
Blasters	19	19	0	1	1
Brakers, Train	1	1	0	0	0
Carpenters	37	37	0	5	5
Cement Masons	3	3	0	0	0
Crane, Derrick & Hoist Operators	21	21	0	2	2
Delivery & Route Workers	3	3	0	0	0
Dispatchers, Mine-Car	8	8	0	1	1
Drier Operators, Coal or Ore	4	4	0	1	1
Drillers, Machine	127	128	1	17	18
Electricians	282	284	2	27	29
Supervisors, Nonworking	644	648	4	70	74
Heavy Equipment Operators	321	323	2	27	29
Industrial Truck Operators	13	13	0	1	1
Loading-Machine Operators, Underground	64	64	0	7	7
Machinists	46	46	0	5	5
Maintenance Repairers, General Utility	54	54	0	5	5
Trades Helpers	529	532	3	59	62
Millwrights	15	15	0	2	2
Dinky Operators	1	1	0	0	0
Oilers	148	149	1	16	17
Painters, Maintenance	43	43	0	5	5
Panelboard Operators	38	38	0	4	4
Plumbers &/or Pipefitters	40	40	0	4	4

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

PIMA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Production Packagers	15	15	0	2	2
Reagent Tenders	47	47	0	5	5
Sheet Metal Workers	3	3	0	0	0
Stationary Boiler Firers	1	1	0	0	0
Stationary Engineers	7	7	0	1	1
Track Layers	68	68	0	8	8
Welders & Flamecutters	368	370	2	41	43
Surveyor Helpers	10	10	0	1	1
Samplers &/or Test Preparers	39	39	0	4	4
Conveyor Operators/Tenders	18	18	0	2	2
Yard Engineers	52	52	0	11	11
Mill &/or Grinder Operators, Minerals	150	151	1	12	13
Pump Operators	26	26	0	3	3
All Other Skilled Craft Workers	57	57	0	5	5
All Other Operatives & Semiskilled Workers	190	191	1	21	22
All Other Laborers & Unskilled Workers	945	951	6	105	111
TOTAL CLERICAL WORKERS	494	497	3	91	94
Computer Operators	16	16	0	2	2
Keypunch Operators	12	12	0	3	3
Accounting Clerks	35	35	0	7	7
Bookkeepers, Hand	4	4	0	1	1
Cashiers	1	1	0	0	0
File Clerks	42	42	0	11	11
General Clerks, Office	91	92	1	19	20
Order Clerks	10	10	0	2	2
Payroll &/or Timekeeping Clerks	14	14	0	2	2
Personnel Clerks	20	20	0	5	5
Receptionists	3	3	0	1	1
Secretaries	95	96	1	21	22
Switchboard Operators	1	1	0	0	0
Switchboard Operators-Receptionists	9	9	0	2	2
Typists	9	9	0	2	2
Clerical Supervisors	3	3	0	0	0
All Other Office Clerical Workers	3	3	0	0	0
Production Clerks &/or Coordinators	17	17	0	2	2
Shipping Packers	1	1	0	0	0
Shipping &/or Receiving Clerks	3	3	0	0	0
Stock Clerks	101	102	1	11	12
Dispatchers	3	3	0	0	0
All Other Plant Clerical Workers	1	1	0	0	0
TOTAL ALL OCCUPATIONS	7,767	7,807	40	827	867

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Lawyers
Lease Buyers

TECHNICAL WORKERS

All Other Engineering Technicians
Civil Engineering Technicians

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Drillers, Hand
All Other Operatives & Semiskilled Workers
Shaker Tenders
Separator Tenders
All Other Laborers & Unskilled Workers
Dump Operators

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

PINAL COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	139	137	0	19	19
TOTAL PROFESSIONAL WORKERS	427	419	0	45	45
Chemical Engineers	13	13	0	1	1
Mechanical Engineers	6	6	0	0	0
Metal Engineers	42	41	0	2	2
Mining Engineers	45	44	0	7	7
Safety Engineers	24	24	0	2	2
All Other Engineers	32	31	0	2	2
Chemists	15	15	0	2	2
Geologists & Geophysicists	43	42	0	3	3
Systems Analysts, EDP	15	15	0	1	1
Purchasing Agents &/or Buyers	16	16	0	2	2
Accountants & Auditors	45	44	0	7	7
Personnel & Labor Relations Specialists	127	124	0	15	15
All Other Professional Workers	4	4	0	1	1
TOTAL TECHNICAL WORKERS	335	329	0	28	28
Computer Programmers	12	12	0	1	1
Drafters	33	32	0	3	3
Surveyors	37	36	0	2	2
Mechanical Engineering Technicians	13	13	0	0	0
All Other Engineering Technicians	7	7	0	1	1
Science Technicians	166	163	0	14	14
All Other Technical Workers	67	66	0	7	7
TOTAL SERVICE WORKERS	53	53	0	6	6
Janitors, Porters & Cleaners	13	13	0	2	2
Guards & Doorkeepers	29	29	0	2	2
All Other Service Workers	11	11	0	2	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	6,447	6,331	0	560	560
Mechanics, Automotive	78	76	0	6	6
Mechanics, Diesel	72	71	0	6	6
Mechanics, Engineering-Equipment	126	123	0	10	10
Mechanics, Mine-Machinery	243	238	0	22	22
Mechanics, Maintenance	136	133	0	12	12
All Other Mechanics & Repairers	68	67	0	6	6
Truck Drivers	342	337	0	25	25
Blasters	1,215	1,191	0	62	62
Headers, Bottomers, Car Droppers &/or Cagers	45	44	0	6	6
Brakers, Train	171	168	0	18	18
Carpenters	47	46	0	6	6
Cement Masons	224	220	0	15	15
Crane, Derrick & Hoist Operators	124	122	0	12	12
Delivery & Route Workers	11	11	0	1	1
Drillers, Machine	66	65	0	9	9
Electricians	222	218	0	21	21
Supervisors, Nonworking	369	362	0	40	40
Heavy Equipment Operators	161	160	0	14	14
Industrial Truck Operators	34	33	0	2	2
Lampkeepers/Repairers	12	12	0	1	1
Loading-Machine Operators, Underground	324	318	0	36	36
Machinists	47	46	0	5	5
Trades Helpers	392	385	0	43	43
Panelboard Operators	109	107	0	12	12
Plumbers &/or Pipefitters	49	48	0	5	5
Shuttle-Car Operators	56	55	0	6	6
Welders & Flamecutters	103	101	0	11	11
Surveyor Helpers	23	23	0	3	3
Belt Repairers	23	23	0	3	3

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

PINAL COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Samplers &/or Test Preparers	72	71	0	8	8
Conveyor Operators/Tenders	135	132	0	15	15
Mill &/or Grinder Operators, Minerals	128	126	0	10	10
Mixers &/or Blenders, Chemicals	11	11	0	1	1
All Other Skilled Craft Workers	121	120	0	12	12
All Other Operatives & Semiskilled Workers	298	292	0	9	9
All Other Laborers & Unskilled Workers	790	776	0	87	87
TOTAL CLERICAL WORKERS	319	315	0	57	57
Keypunch Operators	14	14	0	3	3
All Other Office Machine Operators	11	11	0	2	2
Accounting Clerks	25	25	0	5	5
General Clerks, Office	37	36	0	8	8
Order Clerks	18	18	0	4	4
Payroll &/or Timekeeping Clerks	13	13	0	2	2
Personnel Clerks	14	14	0	4	4
Secretaries	54	53	0	12	12
Switchboard Operators-Receptionists	5	5	0	1	1
Typists	10	10	0	3	3
Clerical Supervisors	14	14	0	2	2
All Other Office Clerical Workers	9	9	0	2	2
Shipping &/or Receiving Clerks	29	28	0	3	3
Weighers, Record-Keeping	20	20	0	2	2
Stock Clerks	46	45	0	5	5
TOTAL ALL OCCUPATIONS	7,720	7,584	0	738	738

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL & TECHNICAL WORKERS

All Other Engineers
Industrial Engineers

SERVICE WORKERS

All Other Service Workers
Food Service Workers
Supervisors, Nonworking-Service

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Drillers, Hand
Riggers
Maintenance Repairers, General Utility
Rock Splitters, Quarry
Reagent Tenders
Stationary Engineers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Drier Operators, Coal or Ore
Dinkey Operators
Stationary Boiler Firers
Separator Tenders

All Other Laborers & Unskilled Workers
Dump Operators
Oilers
Painters, Maintenance

CLERICAL WORKERS

All Other Office Machine Operators
Computer Programmers
Stenographers

All Other Office Clerical Workers
Receptionists
Switchboard Operators

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

YAVAPAI COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	44	43	0	6	6
TOTAL PROFESSIONAL WORKERS	69	69	0	8	8
Civil Engineers	5	5	0	1	6
Mining Engineers	11	11	0	2	2
All Other Engineers	6	6	0	0	0
Chemists	2	2	0	0	0
Geologists & Geophysicists	18	18	0	1	1
Purchasing Agents &/or Buyers	8	8	0	1	1
Accountants & Auditors	5	5	0	1	1
All Other Professional Workers	14	14	0	2	2
TOTAL TECHNICAL WORKERS	39	39	0	4	4
Civil Engineering Technicians	4	4	0	1	1
All Other Engineering Technicians	10	10	0	1	1
Science Technicians	21	21	0	2	2
All Other Technical Workers	4	4	0	0	0
TOTAL SERVICE WORKERS	65	64	0	9	9
Guards & Doorkeepers	16	16	0	1	1
Food Service Workers	31	30	0	5	5
Supervisors, Nonworking-Service	1	1	0	0	0
All Other Service Workers	17	17	0	3	3
TOTAL MAINTENANCE & PRODUCTION WORKERS	695	688	0	67	67
Mechanics, Automotive	11	11	0	1	1
Mechanics, Engineering-Equipment	44	43	0	4	4
Mechanics, Mine-Machinery	12	12	0	1	1
Mechanics, Maintenance	51	50	0	5	5
All Other Mechanics & Repairers	1	1	0	0	0
Truck Drivers	93	92	0	7	7
Blasters	8	8	0	0	0
Carpenters	9	9	0	1	1
Cement Masons	1	1	0	0	0
Crane, Derrick & Hoist Operators	4	4	0	0	0
Drier Operators, Coal or Ore	4	4	0	1	1
Drillers, Machine	17	17	0	2	2
Dump Operators	1	1	0	0	0
Electricians	36	35	0	3	3
Supervisors, Nonworking	72	71	0	8	8
Heavy Equipment Operators	68	67	0	6	6
Machinists	8	8	0	1	1
Trades Helpers	50	49	0	6	6
Oilers	19	19	0	2	2
Painters, Maintenance	6	6	0	1	1
Panelboard Operators	7	7	0	1	1
Plumbers &/or Pipefitters	7	70	0	1	1
Reagent Tenders	3	3	0	0	0
Welders & Flamecutters	28	28	0	3	3
Separator Tenders	11	11	0	1	1
Conveyor Operators/Tenders	1	1	0	0	0
Mill &/or Ore Grinders, Minerals	17	17	0	1	1
Pump Operators	7	7	0	1	1
Mixers &/or Blenders, Chemicals	6	6	0	1	1
All Other Skilled Craft Workers	21	21	0	2	2
All Other Operatives & Semiskilled Workers	5	5	0	0	0
All Other Laborers & Unskilled Workers	67	67	0	7	7
TOTAL CLERICAL WORKERS	102	101	0	17	17
Accounting Clerks	7	7	0	1	1
Cashiers	4	4	0	1	1
General Clerks, Office	13	13	0	3	3

ESTIMATED EMPLOYMENT AND JOB OPENINGS
MINING

YAVAPAI COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Personnel Clerks	1	1	0	0	0
Receptionists	1	1	0	0	0
Secretaries	25	25	0	6	6
Clerical Supervisors	1	1	0	0	0
All Other Office Clerical Workers	5	5	0	1	1
Production Clerks &/or Coordinators	2	2	0	0	0
Shipping &/or Receiving Clerks	1	1	0	0	0
Stock Clerks	41	40	0	5	5
All Other Plant Clerical Workers	1	1	0	0	0
TOTAL SALES WORKERS	8	8	0	1	1
Sales Clerks	7	7	0	1	1
All Other Sales Workers	1	1	0	0	0
TOTAL ALL OCCUPATIONS	1,022	1,012	0	112	112

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Metal Engineers

TECHNICAL WORKERS

All Other Engineering Technicians
Drafters

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Dredge Operators
Drillers, Hand
Maintenance Repairers, General Utility

All Other Operatives & Semiskilled Workers
Industrial Truck Operators
Conveyor Operators/Tenders

All Other Laborers & Unskilled Workers
Mill &/or Grinder Operators, Minerals

METHODOLOGY

Limitations of the Data

The projection methods do not account for cyclical, seasonal, and such factors as the sudden opening and closing of large establishments. Caution is advised in the use of employment forecast data for industries with limited employment - especially in the smaller counties. The establishment or closing of a single firm could have a profound effect on a county's employment and demand.

The occupational data in this publication refer only to employees who earned a wage or salary. Self-employed and unpaid family workers are not represented in the statistics.

Sample Selection and Response Rate

Occupational estimates for the mining industry were developed from a survey of employers throughout the state. Employers who were asked to participate in the survey were selected from a master employer file of firms doing business in Arizona, using standardized sampling techniques. A sample of establishments employing 4-99 employees and all establishments having 100 or more employees were surveyed. The entire sample was composed of 160 firms with a usable response rate of 69 percent. Firms responding, however, accounted for 91 percent of the industry's employment.

Employment Projections

Mining employment was projected to 1985 using regression analysis and was adjusted to reflect recent industry developments. The 1985 occupational employment was calculated by applying staffing pattern ratios (as determined by the survey) to the industry projections.

Job Openings

The difference between 1981 and 1985 employment for each occupation represents expected job openings due to growth. Job openings due to separations were calculated by interpolating 1970 and 1985 separation rates for each occupation¹ and applying them to the occupational employment projections. "Total job openings" is the sum of openings due to growth and separations. These data do not include openings resulting from turnover, i.e., openings created when a worker changes jobs.

¹"Tomorrow's Manpower Needs," Supplement No. 4, BLS, 1974, pp. 11-16.

SOURCES OF ADDITIONAL INFORMATION

Further information about jobs in the mining industry may be available from the personnel offices of individual companies.

General information on mining occupations is available from:

United Mine Workers of America, 900 15th St. N.W.,
Washington, D.C. 20005

Mine Safety and Health Administration, 4015 Wilson Blvd.,
Arlington, VA 22203

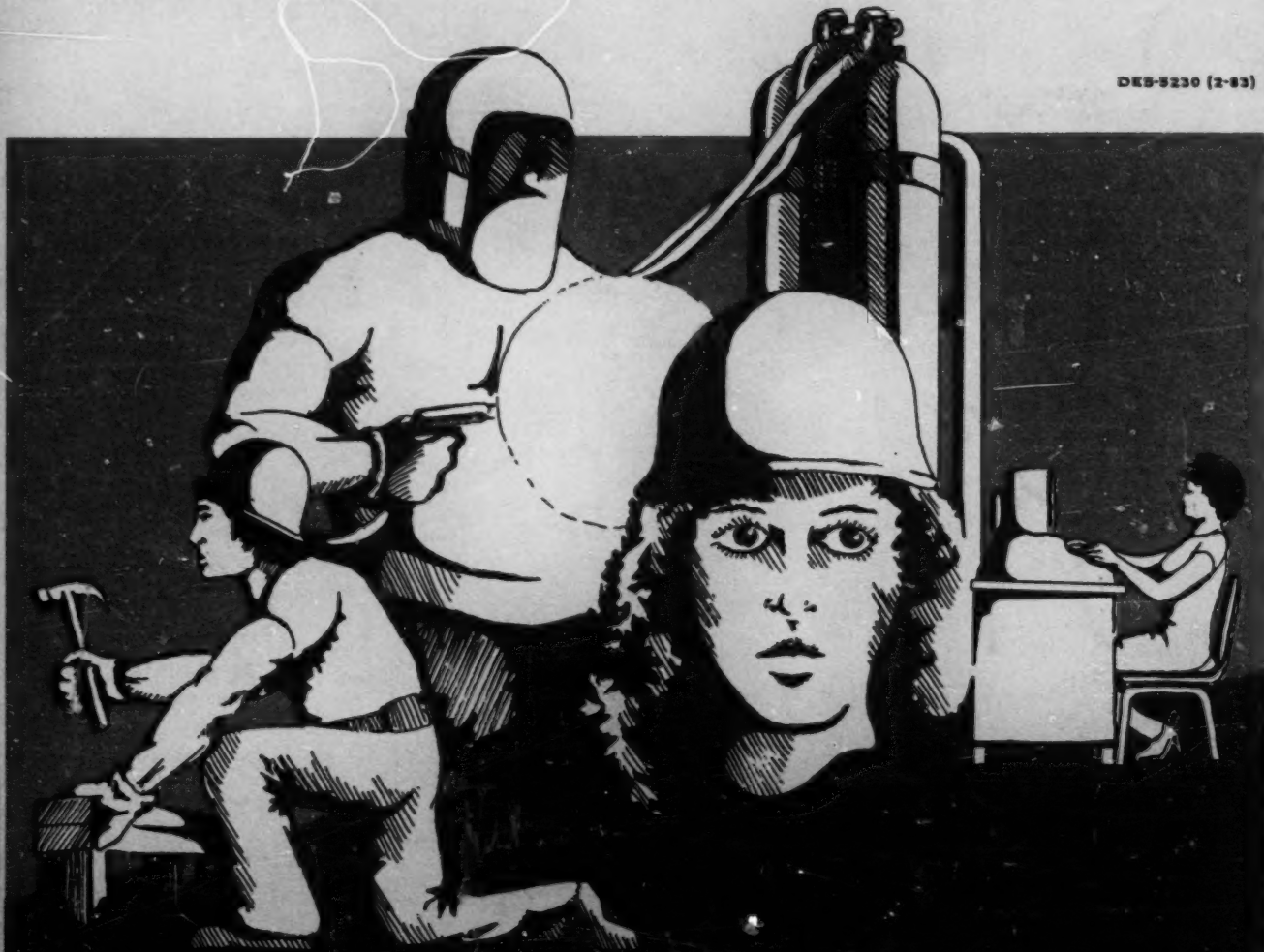
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SERVICES

FEBRUARY 1983

DKS-5230 (2-83)



ARIZONA OCCUPATIONAL PROFILE

A Labor Market Information Publication of the Arizona Department of Economic Security



OCCUPATIONAL PROFILE

The value of current and accurate occupational employment information has long been recognized by job seekers, public and private administrators, and those involved in training, recruiting, and counseling. A major source of this information in Arizona is the Occupational Employment Statistics (OES) Program - a cooperative effort between Arizona and the U.S. Bureau of Labor Statistics.

This Occupational Profile is one in a series of publications produced from information developed by the Occupational Employment Statistics survey. These publications represent one of several occupational employment information delivery systems incorporating OES survey data. The survey is used to collect employment data, by county, for over 1,000 occupations in Arizona. From these surveys, which require the cooperation of the Arizona business community, current employment in the various occupations is determined, and from this an occupational outlook is formulated. The Occupational Profiles contain the survey findings and examine, individually, the industries of Arizona.

Surveyed industries include:

- Mining
- Construction
- Manufacturing
- Transportation, Communications, and Public Utilities
- Trade
- Finance, Insurance, and Real Estate
- Services
- Government

For further information, or to comment on any aspect of this program, please write to the address on the back cover.

INDUSTRY INFORMATION

INDUSTRY DESCRIPTION

Firms classified in the services industry represent those engaged in providing a wide range of services for individuals, businesses, government establishments, and other organizations. Included are hotels and lodging places; membership organizations (which include tribal councils and offices in American Indian communities); establishments providing personal, business, repair, and amusement services; health, legal, engineering, and other professional services; and miscellaneous services.

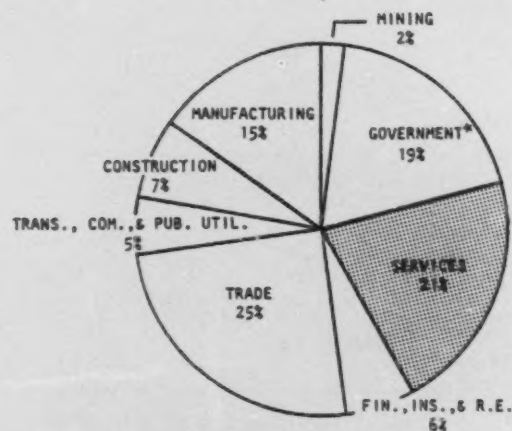
Establishments providing specialized services closely allied to mining, transportation, government, and other industries are classified in these divisions and not in the services industry. IMPORTANT: Hospital and education services employment is excluded from this study, as each of these sectors is the subject of an individual survey.

A more detailed description of the services industry can be found in the Standard Industrial Classification Manual¹ under codes 70 through 89.

INDUSTRY CHARACTERISTICS

Employing approximately 216,000, or twenty percent of Arizona's more than one-million workers in 1981, services represents the state's second largest industry based on employment - trailing only trade. Depending on the classification system used, however, services can qualify as the state's largest industry. Most employees in Arizona schools are state government employees and, as such, they are generally classified as government workers. If one chooses to include these 94,000 workers in the educational services, the service sector swells to more than 300,000 employees and becomes the state's largest industry - followed by trade and manufacturing.

FIGURE 1: ARIZONA NONAGRICULTURAL EMPLOYMENT, 1981



*includes education

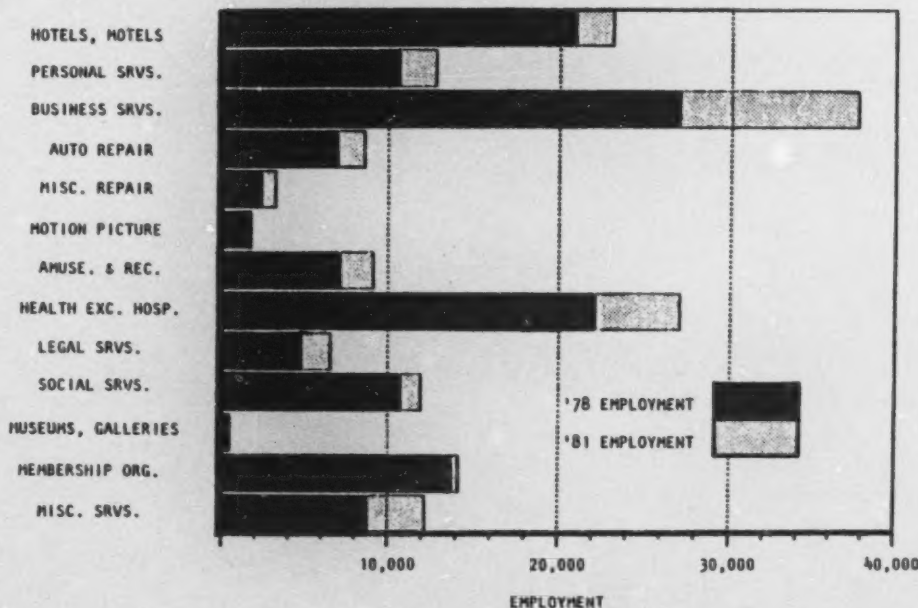
¹ Office of management and Budget, *Standard Industrial Classification Manual*, 1972 Edition, pp. 295-334.

In the language of economists and other social scientists, mention is often made of service and goods-producing sectors of the economy. The services industry is included in the service-producing sector along with the other service-producing industries: transportation, communication, and public utilities; trade; and finance, insurance, and real estate. Government employment may be considered part of the service-producing sector or it may be viewed separately.

As one of the service-producing industries, employment in services generally rides the coattails of activity in "basic" or goods-producing firms. Workers in a plant manufacturing aircraft engines, for example, support area establishments providing health, personal, and auto repair services. In Arizona, however, because of the importance of tourism, many service-producing industries also "import dollars" in the way that the export of manufactures does. The hotel/motel industry could be considered, at least in part, to be a basic industry since it provides more jobs and dollars than would be necessary to support the local population.

The services industry consists of a wide range of firms (as described in the industry description on page 1) that attempt to meet the needs of the resident and nonresident population. Firms rendering health services employ more than 70,000 people or 31 percent of all services employment and is, by far, the state's largest service industry. Hospitals account for sixty percent of health services employment and are followed

FIGURE 2: EMPLOYMENT FOR SELECTED SERVICE INDUSTRIES, 1978 and 1981¹



¹ Education and hospital employment not included.

by physicians offices (14 percent) and nursing and personal care facilities (9 percent).

The second largest service industry, business services, employed 38,000 in 1981, and is dominated by temporary-help services, such as manpower pools, labor pools, and modeling services. Although temporary-help agencies employ a relatively large number of workers, it is important to remember that the labor pool placed in temporary jobs is included on the payroll of the agencies. Most of the larger employment agencies specialized in placing medical workers. Also prominent in the business services category are firms that provide cleaning and maintenance services to buildings and dwellings. Accommodating the needs of tourists and other travelers, Arizona's many hotels and motels employed 23,000 in 1981 and rounded out the state's three largest service industries.

Heavily dependent upon the needs of the local community, one would expect that the geographic distribution of Arizona's services employment and

FIGURE 3: SERVICES
EMPLOYMENT BY AREA - 1981

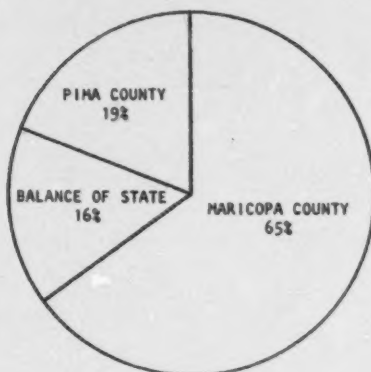
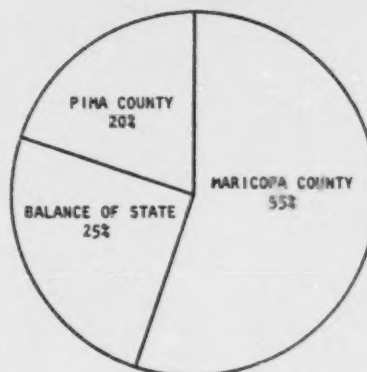


FIGURE 4: POPULATION
BY AREA - 1981



population is similar. In reality, however, a greater concentration of service workers is employed in Maricopa County which, in addition to being a regional service center, is disproportionately represented by many firms providing business and health services. Evidence of this can be seen in figure 6, which, upon close scrutiny, reveals much about the nature of service industries in Arizona. By reading down a column for any county, the table indicates the relative size

FIGURE 5: SERVICES EMPLOYMENT
BY COUNTY - 1981

COUNTY	ESTABLISHMENTS	EMPLOYMENT
Apache	90	4,500
Cochise	375	2,450
Coconino	515	7,175
Gila	170	1,700
Graham/Green	105	825
Maricopa	11,645	140,700
Mohave	330	2,625
Navajo	250	3,875
Pima	3,785	41,200
Pinal	305	2,075
Santa Cruz	130	1,100
Yavapai	470	3,350
Yuma	500	4,475
STATE	18,670	216,050

of each industry component by providing the number of employees in the industry per 1,000 population. In Coconino County, for example, the table

indicates the prominence of the hotel/motel industry followed by social services and health services. Reading across, we see that the ratio of

FIGURE 6: COUNTY EMPLOYMENT PER
1,000 POPULATION

INDUSTRY	COUNTY	APACHE	COCHISE	COCONINO	GILA	GRAN/GREEN.	MARICOPA	MOHAVE	NAVAJO	PIMA	PINAL	SANTA CRUZ	YAVAPAI	YUMA	STATE
HOTELS/HOTELS		3	5	38	5	4	9	18	6	5	2	18	5	6	8
PERSONAL SERVS.		*	2	3	1	2	6	2	1	5	1	2	3	2	4
BUSINESS SERVS.		*	3	3	2	*	20	2	1	10	1	2	2	5	14
AUTO REPAIR		*	1	2	1	*	4	2	1	3	1	1	1	3	3
MISC. REPAIR		*	*	1	*	*	1	1	*	1	1	*	1	1	1
MOTION PICTURES		*	*	1	1	1	1	*	1	1	*	*	*	1	1
AMUSE. & REC.		1	1	7	1	1	5	2	2	6	1	4	2	4	4
HEALTH SERVS.		14	10	16	19	1	29	16	13	30	9	10	22	15	25
LEGAL SERVS.		1	1	1	1	*	3	1	*	2	1	1	1	1	2
SOCIAL SERVS.		37	2	24	5	1	5	4	9	7	14	4	5	5	7
MUSEUMS, ETC.		*	*	1	*	*	*	*	*	*	*	1	*	*	*
MEMBERSHIP ORG.		41	2	13	22	*	3	3	39	3	6	1	2	6	5

hotel/motel employment to population in Coconino County is much greater than that for any other county, and is much higher than the state index of eight.

Of the 60,000 firms doing business in Arizona, 20,000 are engaged in providing services. This is compared to the trade industry which follows

FIGURE 7: SERVICE INDUSTRY FIRMS BY SIZE CLASS
(SECOND QUARTER, 1981)

Employment Size Class	0-9	10-19	20-49	50-99	100-249	250-499	500-999	1000+
Establishments	15,395	1,627	988	352	219	52	18	15

with approximately 13,000 firms. Most firms providing services are small - employing less than 10 employees. The few firms that employ more than 1,000 persons are mostly hospitals and national or regional headquarters of hotel/motel chains.

INDUSTRY TRENDS

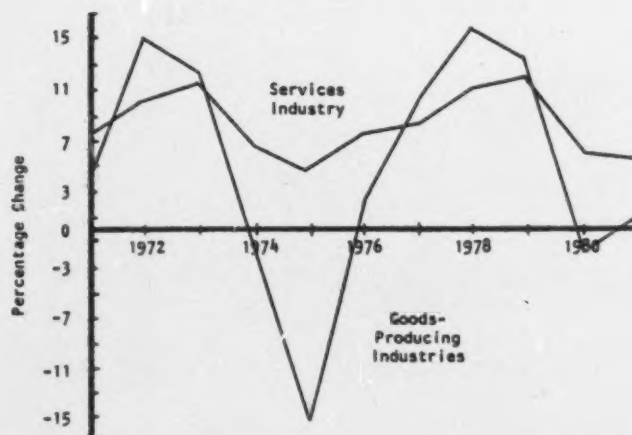
In the decade of the seventies, services employment more than doubled, and now accounts for nearly twenty percent of all workers - up from 17 percent in 1970. Only the trade industry registered a higher growth rate for the decade, and the combined effect of these two sectors is a primary force in the evolution of our state and national economy into one that is primarily service-producing rather than goods-producing.

FIGURE 8: A COMPARISON OF INDUSTRY GROWTH RATES IN ARIZONA

	Employment (000's)			Percent Growth 1970-80	Percent Growth 1978-81
	1970	1978	1981		
SERVICES	91.5	173.1	216.1	124.2%	24.8%
Manufacturing	91.2	126.9	159.6	67.3	25.8
Mining	20.6	19.4	25.0	-.1	28.9
Construction	37.1	71.0	70.9	102.7	-1.4
Trans/Comm/Util	30.0	44.6	53.8	67.3	20.6
Trade	127.0	215.4	254.1	89.4	18.0
Fin/Ins/Real Estate	30.5	50.2	61.1	88.2	21.7
Government	119.5	194.8	199.7	68.7	2.5
TOTAL	547.4	895.4	1,039.5	74.7%	16.1%

A comparison of industry growth rates from year-to-year indicates the relative stability of services' employment. Less vulnerable than

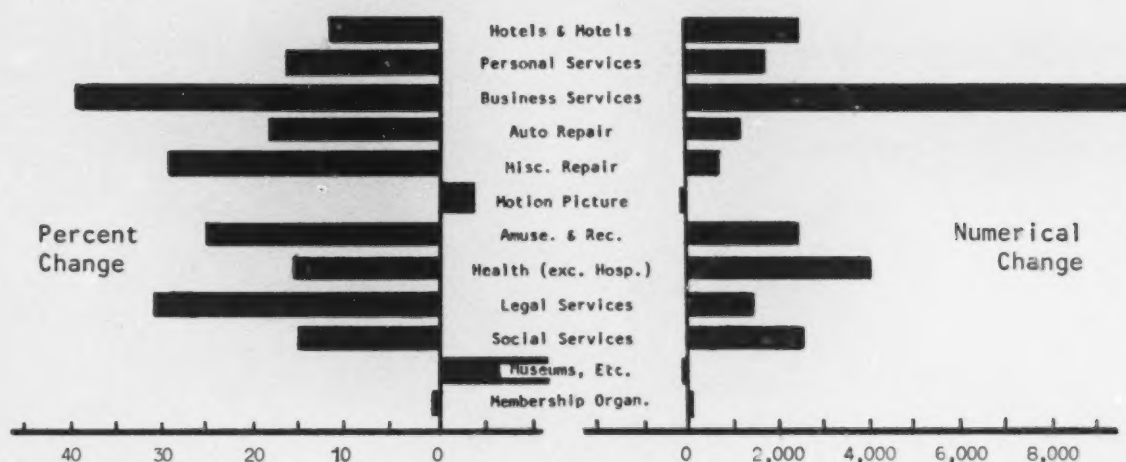
FIGURE 9: ANNUAL EMPLOYMENT CHANGE IN ARIZONA'S GOODS-PRODUCING AND SERVICE INDUSTRIES, 1971-1981



goods-producing industries to fluctuations in the national economy, employment in services increased nearly 125,000 since 1970 and has annually expanded an average of eight percent for the period.

Since 1978, employment in health services has grown by nearly 12,000, and although providing the greatest number of new jobs, health services ranked fifth among the service industries based on the rate of growth. Ranking first was the business services industry which expanded 38 percent between 1978 and 1981. Providing most of the impetus for this growth

FIGURE 10: EMPLOYMENT CHANGE IN
VARIOUS ARIZONA SERVICE INDUSTRIES (1977 - 1980)

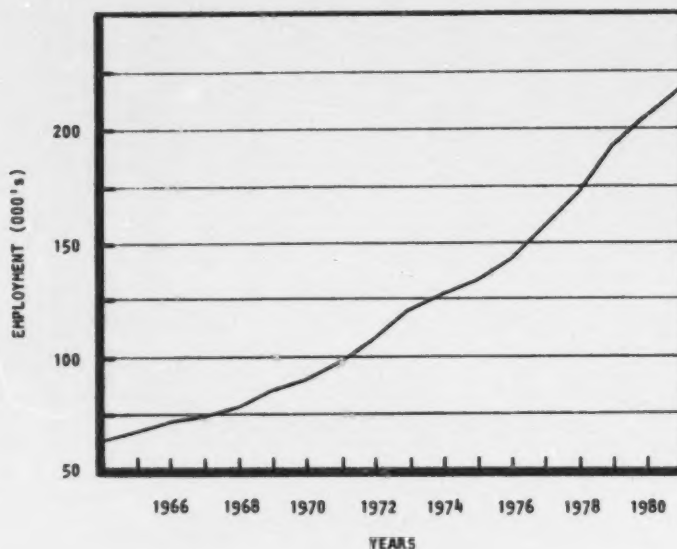


were firms that provide computer programming, systems design and analysis, and other software services. Employment in these firms registered an impressive 180 percent increase as it jumped from 300 in 1978 to more than 800 in 1981. Also contributing to business services' high growth rate are firms that provide commercial photography, art, and graphic services.

Not providing as many job openings as business services, but registering strong growth, was employment in legal services, miscellaneous repair services, and amusement and recreation services. It should surprise no one that the greatest boost to employment in amusement and recreation services was provided by firms engaged in operating coin-operated amusement devices.

Rising incomes and living standards in Arizona have resulted in greater demand for health care, entertainment, and businesses and personal services. Rapid population growth which also characterized Arizona over the past two decades provided further incentive for the consistent expansion of services employment. Predicted to increase an average of five percent annually through 1985, population will bulwark continued expansion of services employment.

FIGURE 11: AVERAGE ANNUAL EMPLOYMENT IN SERVICES



Expenditures for health care will continue to increase, as will employment in the health services industry. Expected to increase by 20 percent between 1981 and 1985, the industry will respond to expanded public and private health insurance coverage and the growing population and number of older Arizona residents. The availability of health insurance, and insurance terms that prescribe which services are reimbursable, will continue to affect the actual level of employment in the various health services delivery systems. Increased coverage for services provided in convalescent institutions and outpatient care facilities, for example, has contributed to employment growth in these areas. While it is clear that employment of health care workers is affected by changes in the extent and terms of insurance coverage, it is not clear what changes in health care financing are likely to occur during the 1980's.

Trends, already established, intended to subdue rapidly rising health care costs include health maintenance organizations (HMOs), home health care, pre-admission testing, ambulatory surgery, and second surgical opinions. Also apparent is the continued trend toward prepaid group health plans which deliver health services while increasingly emphasizing prevention and early diagnosis. Evidence of this trend is the prevalence and growth of HMOs; Arizona's recently enacted Health Care Cost Containment System (AHCCCS); and Individual Practice Associations (IPAs), which like most

HMOs, offer prepaid comprehensive health care to enrollees, but differs in that physicians work in their own offices and bill IPAs on a fee-for-service basis.

Expected to expand 20 percent in Arizona between 1981 and 1985, business services will continue increasing its share of services employment. Firms rendering computer and data processing services will show especially strong growth.

The hotel/motel industry is currently in an era of change as more large corporations, chain organizations, and franchise operations are increasing their share of the market. In recent years, the number of lodging employers in Arizona has actually decreased, while employment in the industry has increased at an average of three percent annually. Following years of fairly strong growth in the 70's, the lodging industry, like other industries, faced soaring costs following the energy shortage in 1979. Also, inflation and credit restraints have taken a further toll in recent years, reducing the amount of money consumers could spend on luxuries, including travel and lodging. These depressive forces notwithstanding, Arizona's lodging industry is in the position of strong potential growth. Mr. Bruce Berres, Vice President of Operations at the Pointe Resorts, Inc. in Phoenix, sees a bright future for the industry. "With the growth of Phoenix as a regional business center," says Mr. Berres, "much of the impetus for further growth will result from the industry's efforts to accommodate business and commercial needs." Having displayed little employment growth in 1981, Arizona's hotel/motel industry is expected to expand an average of five percent annually through 1985.

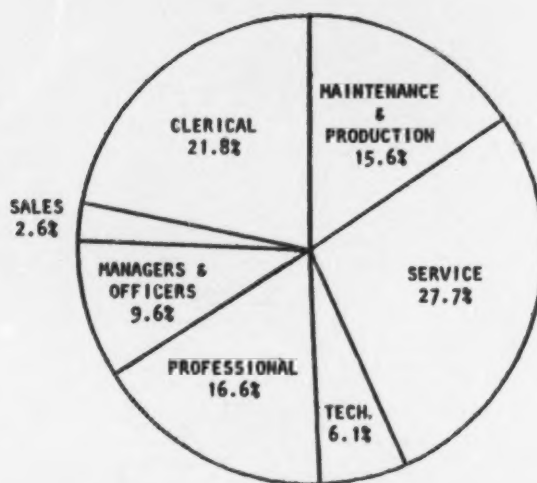


OCCUPATIONAL INFORMATION

OCCUPATIONAL ANALYSIS

Representing firms that engage in such diverse activities as advertising, computer programming, clock repair, and karate instruction, the services industry is comprised of workers with a variety of skills and talents. Nearly thirty percent of the workers in the service industry are categorized in the services occupational classification. This division includes workers who provide personal, protective, and cleaning services. Occupations in this category with the largest employment are maids (5,678),

FIGURE 12: OCCUPATIONS IN ARIZONA'S
SERVICES INDUSTRY
MAY 1981



janitors, porters, and cleaners (4,971), waiters and waitresses (4,299), and guards and doorkeepers (4,041). Together, these workers account for sixty percent of the employment in service occupations.

Clerical and professional workers constitute the second and third largest occupational groups respectively. Common to nearly all firms, clerical workers numbered nearly 26,000 in 1981 - led by secretaries, general office clerks, and receptionists. Professional occupations, on the other hand, reflect the breadth of the industry's services. Although employment of nurses, accountants and auditors, and lawyers rank highest, the professional workers category includes everything from music directors to embalmers.

All seven major occupational groups will experience significant employment growth through 1985; however, the extent of this growth will be dictated by employment changes in the various service industries. Strong growth in the health industry, for example, will impact most on the professional and technical occupations which represent the industry's largest constituents.

As discussed earlier, the availability of public and private health insurance will continue to impact on employment levels in the health industry. Furthermore, health insurance terms that define the kinds of health care which are reimbursable will impact on the occupational mix as well. More generous coverage of home health care services, for example, stimulates demand for those services and thus alters the occupational makeup of the health services industry. Demographic changes, as well, will contribute to the ever-evolving demand for workers with the appropriate skills or training. The increasing number of older Arizonans, for example, will require more workers skilled in the treatment of diseases and ailments associated with the aged.

Workers in service occupations can expect to have the greatest number of job opportunities. Janitors, porters, and cleaners; waiters and waitresses; and cosmetologists and/or women's hairstylists will vie for an expected total of 6,000 job openings through 1985. In addition to job openings transpiring as the result of industry growth, these occupations are characterized by higher-than-average separation rates and turnover, and will, therefore, require substantial numbers of workers to replace those who transfer jobs or leave the labor force.

Clerical occupations will provide nearly 12,000 opportunities to job hunters during the period 1981-1985. Like many of the service occupations, clerical workers also have relatively high turnover and separation rates. Openings will be most abundant for secretaries, general office clerks, and receptionists.

With nearly 900 annual job openings in the health services (excluding hospitals), registered nurses head the list of professional workers. The apparent shortage of nurses willing to work in certain geographical areas and in less desirable positions is expected to abate somewhat, provided employers offer sufficiently attractive wages and working conditions. With continued expansion of Arizona's health services complex, continued demand for nurses and other health professional and technical personnel is assured.

The recent rapid expansion of firms rendering business services has increased the demand for certain workers. Although employment growth in firms providing computer and data processing services has been most conspicuous, total employment in the industry at this time is relatively small. Employment of computer programmers and systems analysts is expected to continue its rapid growth as computer usage expands, particularly in firms providing accounting, business management and computer programming services. However, it is apparent to Tony Benavidez, Regional Personnel Manager at First Interstate Services Company, that aspiring programmers are finding job seeking more competitive than in the past. "As a matter of fact," says Mr. Benavidez, "we are presently faced with an abundance of qualified programmers." This increasingly frequent observation results more from the large supply of entry-level programmers than to a lack of demand - which will remain strong through the 1980's.

FIGURE 13: MOST FREQUENTLY REPORTED
OCCUPATIONS IN ARIZONA'S SERVICES INDUSTRY

	Employment 1981	Job Openings* 1981-1985
Managers & Officers	17,177	6,217
Secretaries	7,440	3,361
Janitors, Porters & Cleaners	6,485	2,021
Maids	5,678	2,635
Waiters or Waitresses	4,299	1,940
Guards & Doorkeepers	4,041	1,138
General Clerks, Office	3,989	1,736
Cosmetologists &/or Hairstylists	3,689	1,826
Receptionists	3,310	1,550
Nurse's Aides &/or Orderlies	3,275	1,373
Nurses, Professional (Exc. Practical Nurse)	3,036	1,215
Accountants & Auditors	2,890	1,076
Bookkeepers, Hand	2,436	1,013
Sales Reps., Agents &/or Associates	2,360	855
Typists (Inc. Clerk-Typists)	2,284	1,081
Kitchen Helpers	2,251	893
Physicians &/or Surgeons	2,229	750
Maintenance Repairers, General Utility	2,212	664
Lawyers	2,113	716
Gardeners & Groundskeepers	2,034	865
Mechanics, Automotive	2,032	611
Drafters	1,919	599
Sales Clerks (Exc. Cashiers)	1,886	653
Accounting Clerks	1,834	764
Child-Care Workers	1,782	877
Cashiers (Inc. Cashier-Checkers)	1,777	760
Licensed Practical Nurses	1,662	721
Desk Clerks	1,582	678
Dental Assistants	1,564	739
Medical Assistants	1,500	642
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	1,487	420
Caseworkers	1,385	524
Cooks, Restaurant	1,368	509
Teachers, Elementary &/or Preschool	1,358	551
Bartenders	1,336	485

*Does not include turnover.

Demand for systems analysts is expected to strengthen in years to come as sophisticated accounting and telecommunications systems rely more heavily on expanding capabilities of the computer. Advances in technology that have drastically reduced the size and cost of computer hardware will have differing effects on employment of systems analysts. Employment in data processing firms may not grow quite as rapidly as in recent years as more small businesses install their own computers rather than rely on a data processing service. This will be offset, however, by a rising demand for analysts to design systems for small computers that are specifically adapted to meet problem-solving needs of small firms.



OCCUPATIONAL STRUCTURE

The following thirteen tables provide employment estimates and projected employment and job openings for the counties and the state. Graham and Greenlee counties have been combined due to their close proximity, similar economies, and size. A table for La Paz County is not included as the survey was conducted prior to this county's creation.

When using the data, please note the following:

- 1) The data reflect full and part-time wage and salary employment only, and do not include self-employed or unpaid family workers.
- 2) Total job openings represent the number of openings due to growth of the industry and separations from the labor force. They do not account for labor turnover, i.e., openings created when a worker changes jobs, leaving the job to be filled by someone else. These vacancies are often the largest source of job openings.
- 3) The projection technique does not possess the degree of accuracy that may be implied by small employment and demand figures.
- 4) To eliminate the possible disclosure of confidential employer information, occupations have been added to the appropriate "all other" or residual category if: less than three firms reported a single occupation; one firm reported more than 50 percent of the occupational estimate; two firms combined reported more than 75 percent of the occupational estimate. In certain cases, releases have been obtained from large employers to waive the confidentiality criteria.

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

STATEWIDE

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	17,177	9.6	20,861	6,217
TOTAL PROFESSIONAL WORKERS	29,849	16.6	36,077	10,506
Engineers (Inc. Sales Engineers)	75	.0	94	25
Aeronautical Engineers	91	.1	113	28
Chemical Engineers	39	.0	48	12
Civil Engineers	712	.4	871	256
Electrical & Electronic Engineers	774	.4	946	219
Industrial Engineers	7	.0	8	2
Mechanical Engineers	392	.2	480	113
Metallurgists & Metallurgical Engineers	26	.0	32	7
Mining Engineers	39	.0	47	14
Safety Engineers	8	.0	10	3
All Other Engineers	171	.1	206	47
Actuaries	17	.0	21	7
Financial Analysts	49	.0	60	16
Statisticians	82	.0	97	26
Chemists	67	.0	82	23
Geologists & Geophysicists	46	.0	56	14
All Other Physical Scientists	59	.0	71	16
All Other Natural & Mathematical Scientists	51	.0	59	14
Economists	7	.0	9	3
Market-Research Analysts	202	.1	248	69
Psychologists	177	.1	213	52
Sociologists	11	.0	14	4
Urban & Regional Planners	73	.0	86	17
All Other Social Scientists	236	.1	277	55
Systems Analysts, EDP	76	.0	92	19
Systems Analysts, Business	408	.2	500	110
Systems Analysts, Scientific & Technical	146	.1	180	41
Teachers, Voc. Ed. or Training	333	.2	394	129
Teachers, Adult Education	443	.2	528	135
Vocational & Educational Counselors	473	.3	568	163
Teachers, Elementary &/or Preschool	1,358	.8	1,647	551
All Other Teachers	272	.2	323	114
Photographers	95	.1	116	31
Photographers, Portrait &/or Commercial	170	.1	210	58
All Other Photographers	34	.0	42	12
Purchasing Agents &/or Buyers	194	.1	237	69
Accountants & Auditors	2,890	1.6	3,523	1,076
Actors or Actresses	124	.1	151	41
Landscape Architects	73	.0	90	27
Architects (Exc. Landscape Architects)	425	.2	523	155
Archivists	7	.0	9	3
Announcers	14	.0	17	4
Athletes	39	.0	48	13
Budget Analysts	66	.0	79	23
Media Buyers	55	.0	67	20
Directors, Camp	10	.0	12	4
Caseworkers	1,385	.8	1,655	524
Chiropractors	96	.1	115	49
Clergy	116	.1	142	45
Commercial Artists	318	.2	389	130
Cost Estimators	28	.0	34	12
Dance Instructors	215	.1	264	99
Dancers	37	.0	46	22
Dentists	673	.4	802	197
Dietitians &/or Nutritionists	125	.1	150	52
Writers &/or Editors	237	.1	287	93
Embalmers	111	.1	135	35
Employment Interviewers	549	.3	671	189

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
Law Clerks	263	.2	321	88
Lawyers	2,113	1.2	2,590	716
Librarians, Professional	50	.0	60	22
Media Analysts	26	.0	32	9
Curators, Museum	20	.0	24	7
Music Directors	10	.0	12	4
Musicians, Instrumental	532	.3	655	203
Nurses, Professional (Exc. Practical Nurses)	3,036	1.7	3,649	1,215
Occupational Therapists	41	.0	49	15
Optometrists (Exc. Opticians)	189	.1	225	65
Paralegal Personnel	438	.2	535	146
Personnel & Labor Relations Specialists	500	.3	608	169
Pharmacists	17	.0	20	7
Physical Therapists	256	.1	306	91
Physicians &/or Surgeons	2,229	1.2	2,641	750
Podiatrists	75	.0	91	31
Public Relations Practitioners	328	.2	400	123
Reporters &/or Correspondents	28	.0	34	11
Sports Instructors	558	.3	678	184
Singers	12	.0	15	5
Veterinarians	12	.0	15	4
Designers (Exc. Design Engineers)	284	.2	349	89
Athletic Trainers	7	.0	8	2
Community Organization Workers	789	.4	926	281
All Other Therapists	36	.0	43	13
Tax Preparers	344	.2	421	130
Group Recreation Workers	637	.4	773	230
Manual Arts, Music &/or Rec. Therapists	28	.0	33	9
Speech Pathologists &/or Audiologists	21	.0	25	7
Audiometrists	16	.0	19	13
Respiratory Therapists	22	.0	26	8
All Other Professional Workers	1,926	1.1	2,300	652
TOTAL TECHNICAL WORKERS	11,062	6.2	13,351	4,135
Computer Programmers	107	.1	131	30
Computer Programmers, Business	524	.3	640	144
Computer Programmers, Scientific & Technical	70	.0	85	19
Engineering Technicians	80	.0	100	27
Drafters	1,919	1.1	2,356	599
Electrical & Electronic Technicians	483	.3	590	136
Surveyors (Exc. Surveyor Helpers)	506	.3	614	142
Mechanical Engineering Technicians	44	.0	54	12
Specification Writers, Engineering	11	.0	14	5
Civil Engineering Technicians	223	.1	274	82
All Other Engineering Technicians	427	.2	523	143
Science Technicians	106	.1	126	30
Physical Science Technicians	27	.0	32	7
All Other Science Technicians	25	.0	30	8
Dental Assistants	1,564	.9	1,864	739
Licensed Practical Nurses	1,662	.9	2,002	721
Physician's Assistants	121	.1	143	50
Museum Technicians &/or Restorers	32	.0	38	10
Technical Assistants, Library	13	.0	15	5
Radiologic Technicians	427	.2	510	154
Pharmacy Helpers	22	.0	26	9
Medical-Record Librarians	102	.1	119	43
Medical & Dental Technicians	64	.0	75	23
Dental Hygienists	721	.4	859	304
Medical Laboratory Technologists	385	.2	459	146
Biochemistry Technologists	20	.0	24	7
Microbiology Technologists	38	.0	45	14
Cytotechnologists	17	.0	20	6

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
Histologic Technologists	22	.0	26	8
Medical Laboratory Technicians	428	.2	511	184
Electrocardiograph Technicians	61	.0	73	21
Electroencephalograph Technicians	13	.0	15	4
Dietetic Technicians	21	.0	25	8
Blood Bank Technology Specialists	52	.0	63	19
Physical Therapy Assistants	192	.1	230	54
Radiologic &/or Nuclear Medical Technicians	78	.0	92	27
All Other Medical & Dental Technicians	105	.1	124	83
All Other Technicians	350	.2	424	112
TOTAL SERVICE WORKERS	49,767	27.7	60,492	20,408
Janitors, Porters & Cleaners	303	.2	367	121
Maids	5,678	3.2	6,898	2,635
House Cleaners	1,211	.7	1,490	545
All Other Janitors, Porters and Cleaners	4,971	2.8	6,060	2,021
Guards & Doorkeepers	4,041	2.3	4,936	1,138
Food Service Workers (Exc. Cashiers)	291	.2	356	119
Bakers, Bread &/or Pastry	36	.0	44	14
Bartenders	1,336	.7	1,621	485
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	1,487	.8	1,820	420
Butchers &/or Meat Cutters	13	.0	16	4
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop	311	.2	381	141
Kitchen Helpers	2,251	1.3	2,725	893
Waiters or Waitresses	4,299	2.4	5,256	1,940
Counter Attndts., Lunch, Coffee Shop or Cafeteria	329	.2	401	150
Cooks, Short Order &/or Specialty Fast Foods	417	.2	498	147
Cooks, Restaurant (Exc. Supervisory Chefs)	1,368	.8	1,660	509
Food Prep. & Service Wrks., Fast Food Restrnt.	276	.2	337	113
Pantry, Sandwich &/or Coffee Makers	313	.2	387	133
Cooks, Institution	818	.5	976	287
All Other Food Service Workers	183	.1	219	70
Child-Care Attendants	544	.3	664	271
Barbers	587	.3	721	234
Bellhops, Porters, Doorkpr. & Rm. Srvc. Attnds.	401	.2	499	127
Cosmetologists &/or Women's Hairstylists	3,689	2.1	4,508	1,826
Detectives	72	.0	88	20
Supervisors, Nonworking-Service	729	.4	891	246
Funeral Attendants	115	.1	139	31
Housekeepers	584	.3	708	245
Manicurists	225	.1	277	114
Masseurs or Masseuses	33	.0	41	15
Nurse's Aides &/or Orderlies	3,275	1.8	3,910	1,373
Protective-Signal Operators	79	.0	97	36
Psychiatric Aides	28	.0	32	10
Recreation Facility Attendants	1,219	.7	1,493	459
Game & Ride Operators & Concession Workers	580	.3	714	228
Scalp Treatment Operators	17	.0	21	9
Ushers, Lobby Attendants & Ticket Takers	441	.3	536	161
Wig Dressers	19	.0	24	10
Shampooers	69	.0	85	35
Instructors, Reducing	424	.2	523	187
Guides, Sightseeing or Establishment	44	.0	52	17
Child-Care Workers	1,782	1.0	2,166	877
Lifeguards	168	.1	207	65
Checkroom & Locker-Room Attendants	177	.1	217	77
Social Service Aides	1,071	.6	1,265	390
Medical Assistants	1,500	.8	1,789	642
Occupational Therapy Aides	9	.0	11	4
Mortuary Beauticians	9	.0	11	3
All Other Service Workers	1,945	1.1	2,355	811

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
TOTAL MAINTENANCE & PRODUCTION WORKERS	28,002	15.6	34,001	9,463
Protective-Signal Installers &/or Repairers	132	.1	162	38
Mechanics, Automotive	2,032	1.1	2,471	611
Body Repairers, Automotive	585	.3	714	177
Bicycle Repairers	29	.0	36	10
Camera Repairers	11	.0	14	4
Diesel Mechanics (Exc. Auto & Engineering Equip.)	258	.1	315	80
Electric-Motor Repairers	273	.2	336	89
Electric-Tool Repairers	26	.0	32	8
Electrical Instrument Repairers	18	.0	22	6
Laundry-Machine Mechanics	46	.0	56	14
Locksmiths	60	.0	73	19
Mechanics, Maintenance (Exc. Millwrights)	471	.3	567	140
Pinsetter Mechanics, Automatic	94	.1	114	29
Office Machine &/or Cash Register Servicers	21	.0	25	6
Refrigeration/Air Conditioning Mechanics	108	.1	133	35
TV, Radio &/or Tape Recorder Servicers & Repairers	135	.1	165	39
Coin/Vending-Machine Servicers & Repairers	28	.0	33	8
Data Processing Machine Repairers	42	.0	51	11
Gas & Electric Appliance Repairers	125	.1	154	44
All Other Mechanics & Repairers	313	.2	380	97
Developers &/or Projection Printers	241	.1	294	81
Negative Cutters &/or Spotters	37	.0	45	13
Multiple-Photographic-Printer Operators	89	.0	109	33
Print Developers, Machine	40	.0	49	15
Photo Checkers & Assemblers	69	.0	85	26
Copy Camera Operators	57	.0	70	21
All Other Darkroom Workers	15	.0	18	5
Markers, Classifiers, Wet Wash Assemblers	179	.1	219	87
Spotters, Dry-Cleaning	55	.0	67	22
Spotters, Washable Materials	18	.0	22	9
Washers, Machine &/or Starchers	350	.2	423	164
Tumbler Operators	31	.0	38	15
Dry-Cleaning-Machine Operators	144	.1	176	58
Dry-Cleaners, Hand	14	.0	17	6
Laundry Operators, Small Establishment	468	.3	571	225
Pressers, Hand	93	.1	113	44
Pressers, Machine (Exc. Laundry Pressers, Machine)	289	.2	354	118
Pressers, Machine, Laundry	373	.2	458	182
Rug Cleaners, Hand	120	.1	145	47
Rug Cleaners, Machine	71	.0	87	29
Shoe Repairers	57	.0	70	31
Truck Drivers	692	.4	844	205
Billposters	20	.0	24	6
Blueprinting Machine Operators	121	.1	148	44
Bus Drivers	287	.2	336	87
Carpenters	226	.1	270	73
Cleaners, Vehicle	1,194	.7	1,467	339
Compositors &/or Typesetters	37	.0	45	14
Delivery & Route Workers	1,071	.6	1,306	311
Electricians	145	.1	174	43
Exterminators	608	.3	743	206
Filters, Grinders & Buffers (Exc. Lens)	16	.0	20	5
Supervisors, Nonworking	662	.4	801	215
Folders, Laundry	117	.1	141	49
Fumigators	9	.0	11	3
Industrial Truck Operators	46	.0	56	13
Inspectors	126	.1	154	47
Instrument Repairers	103	.1	124	31
Jewelers &/or Silversmiths	20	.0	25	9
Machinists	146	.1	177	47
Maintenance Repairers, General Utility	2,212	1.2	2,667	664
Trades Helpers	394	.2	474	126

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
Menders (Exc. Seamstresses & Alter. Tailors)	48	.0	58	16
Order Fillers	37	.0	45	10
Photo Retouchers/Colorists & Airbrush Artists	116	.1	142	47
Painters, Automotive	266	.2	325	90
Painters, Maintenance	123	.1	148	41
Parking Lot Attendants	140	.1	173	46
Plumbers &/or Pipefitters	105	.1	125	31
Press Operators &/or Plate Printers	37	.0	45	11
Production Packagers	127	.1	155	48
Motion Picture Projectionists	167	.1	202	75
Dental-Laboratory Technicians	443	.3	527	144
Sewing Machine Opers., Reg. Equip.-Garment	10	.0	12	3
Sewing Machine Opers., Special Equip.-Garment	4	.0	5	2
Sewing Machine Opers., Reg. Equip.-Nongarment	25	.0	31	9
Sewing Machine Opers., Spec. &/or Auto. Equip. Nongarment	8	.0	10	3
Sign Erectors	40	.0	49	14
Stationary Boiler Firers	3	.0	4	1
Stationary Engineers	13	.0	15	4
Alteration Tailors (Exc. Menders & Custom Sewers)	40	.0	49	16
Animal Caretakers	204	.1	250	88
Termite Treaters	56	.0	69	20
Termite Treater Helpers	13	.0	16	5
Tire Fabricators &/or Repairers	161	.1	198	56
Tractor-Rental Attendants	35	.0	43	15
Watchmakers	6	.0	7	2
Welders & Flamecutters	392	.2	481	135
Pin Chasers	98	.1	120	37
Rackers, Poolroom	22	.0	27	8
Fuel Pump Attendants &/or Lubricators	139	.1	171	48
Opticians, Dispensing &/or Optical Mechanics	147	.1	172	50
Furniture Upholsterers	213	.1	260	81
Surveyor Helpers	433	.2	525	143
Septic Tank Servicers &/or Sewer Pipe Cleaners	26	.0	31	8
Baker Helpers	13	.0	16	5
Testers	23	.0	28	8
Auto Seat Cover & Top Installers	144	.1	177	43
Glass Installers	150	.1	183	48
Rental Car Deliverers	134	.1	165	47
Picture Framers	17	.0	21	6
Gardeners & Groundskeepers	2,034	1.1	2,491	865
Chauffeurs	175	.1	212	63
Bindery Workers, Assembly	7	.0	9	3
Bus Drivers, School	216	.1	253	66
All Other Skilled Craft Workers	772	.4	941	243
All Other Operatives & Semiskilled Workers	1,554	.9	1,841	467
All Other Laborers & Unskilled Workers	3,197	1.8	3,884	1,059
TOTAL CLERICAL WORKERS	39,122	21.8	47,413	16,939
Bookkeeping &/or Billing Machine Operators	363	.2	441	148
Computer Operators	738	.4	899	244
Keypunch Operators	877	.5	1,068	388
Peripheral EDP Equipment Operators	58	.0	71	27
Inserting &/or Labeling Machine Operators	27	.0	33	14
Duplicating Machine Operators	84	.0	104	41
All Other Office Machine Operators	209	.1	255	106
Stenographers	392	.2	474	167
Accounting Clerks	1,834	1.0	2,226	764
Bookkeepers, Hand	2,436	1.4	2,955	1,013
Call-Out Operators	25	.0	30	11
Car Rental Clerks	436	.2	537	222
Cashiers (Inc. Cashier-Checkers)	1,777	1.0	2,160	760

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected, 1985 Employment	Total Job Openings 1981-1985
Collectors	352	.2	430	132
Counter Clerks	553	.3	673	240
Desk Clerks, Bowling Floor	183	.1	224	69
Credit Reporters	117	.1	143	52
Media Clerks, Estimators &/or Billers	15	.0	18	3
File Clerks	748	.4	904	368
General Clerks, Office	3,989	2.2	4,837	1,736
Desk Clerks	1,582	.9	1,917	678
In-File Operators	53	.0	65	24
Library Assistants (Exc. Techs.)	15	.0	18	7
Mail Clerks	172	.1	210	69
Insurance Clerks, Medical	537	.3	639	221
Order Clerks	117	.1	143	51
Payroll &/or Timekeeping Clerks	504	.3	615	205
Personnel Clerks	260	.1	312	126
Receptionists	3,310	1.8	3,970	1,550
Secretaries	7,440	4.1	9,041	3,361
Statistical Clerks	125	.1	148	51
Survey Workers	986	.6	1,205	380
Switchboard Operators	963	.5	1,180	484
Switchboard Operator-Receptionists	864	.5	1,052	421
Messengers	139	.1	171	50
Travel Counselors, Auto Club	33	.0	40	16
Travel Clerks	43	.0	53	20
Typists (Inc. Clerk-Typist)	2,284	1.3	2,757	1,081
Clerical Supervisors, Office or Plant	692	.4	836	231
Teacher's Aides &/or Ed. Assistants	997	.6	1,177	358
All Other Office Clerical Workers	1,306	.7	1,571	553
Production Clerks &/or Coordinators	272	.2	332	91
Shipping Packers	86	.0	106	30
Shipping &/or Receiving Clerks	187	.1	230	60
Stock Clerks	719	.4	874	239
Dispatchers	174	.1	210	56
All Other Plant Clerical Workers	49	.0	59	21
TOTAL SALES WORKERS	4,674	2.6	5,719	1,681
Sales Reps., Agents &/or Associates	2,360	1.3	2,902	855
Contribution Solicitors	70	.0	86	26
All Other Sales Reps., Agents &/or Associates	201	.1	247	80
Sales Clerks (Exc. Cashiers)	1,886	1.1	2,290	653
Demonstrators	110	.1	136	46
Vendors	47	.0	58	21
TOTAL ALL OCCUPATIONS	179,653	100.0	217,914	69,429

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
 Petroleum Engineers
 Traffic Engineers
 Nuclear Engineers

 All Other Physical Scientists
 Physicists

 All Other Natural & Math Scientists
 Agricultural Scientists
 Biological Scientists

PROFESSIONAL WORKERS (CONTD.)

All Other Professional Workers
 Appraisers (Exc. Art & Real Estate Appraisers)
 Choirmasters
 Coaches, Professional Athletes (Exc. Head Coaches)
 Comedians
 Film Editors
 Painters, Artistic
 Directors of Religious Activities
 Umpires
 Corrective Therapists

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

STATEWIDE (CONTD.)

TECHNICAL WORKERS

All Other Engineering Technicians
Traffic Technicians
Industrial Engineering Technicians

All Other Technicians
Mathematical Technicians
Surgical Technicians
Taxidermists

SERVICE WORKERS

All Other Service Workers
Costumers
Cremators
Escorts &/or Chaperons
Bootblacks

MAINTENANCE & PRODUCTION WORKERS

All Other Darkroom Workers
Photographer Helpers
Film Printers, Motion Picture Film

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Skilled Craft Workers
Farm Equipment Mechanics
Gunsmiths
Fur Cleaners
Automobile Repairs-Service Estimators
Merchandise Displayers & Window Trimmers
Musical Instrument Repairers
Custom Sewers (Exc. Alteration Tailors & Menders)
Sheet Metal Workers
Furniture Finishers

All Other Operatives & Semiskilled Workers
Saw Filers
Ambulance Drivers &/or Attendants

CLERICAL WORKERS

All Other Office Machine Operators
Addressing-Machine Operators
All Other Office Clerical Workers
Actuarial Clerks
Film Bookers
Foreign Credit Reporters
Procurement Clerks
Eligibility Workers, Welfare
Proofreaders, Clerical

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

APACHE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	308	348	40	45	85
TOTAL PROFESSIONAL WORKERS	1,026	1,162	136	165	301
All Engineers	18	20	2	1	3
All Natural & Mathematical Scientists	19	22	3	2	5
All Social Scientists	12	13	1	1	2
All Teachers	198	225	27	37	64
Purchasing Agents &/or Buyers	5	6	1	1	2
Accountants & Auditors	44	50	6	7	13
Caseworkers	104	118	14	19	33
Law Clerks	5	6	1	1	2
Nurses, Professional (Exc. Practical Nurses)	18	20	2	4	6
Paralegal Personnel	27	31	4	3	7
Personnel & Labor Relations Specialists	23	26	3	3	6
Community Organization Workers	253	286	33	46	79
All Other Professional Workers	300	339	39	40	79
TOTAL TECHNICAL WORKERS	104	118	14	11	25
Drafters	9	10	1	1	2
Electrical & Electronic Technicians	23	26	3	1	4
All Science Technicians	24	27	3	2	5
All Other Engineering Technicians	16	19	3	1	4
All Medical & Dental Technicians	25	28	3	5	8
All Other Technicians	7	8	1	1	2
TOTAL SERVICE WORKERS	674	756	82	126	208
Maids	64	71	7	16	23
All Other Janitors, Porters & Cleaners	42	47	5	8	13
Guards & Doorkeepers	28	32	4	2	6
Bartenders	13	15	2	2	4
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	7	8	1	0	1
Kitchen Helpers	24	27	3	4	7
Waiters or Waitresses	48	53	5	11	16
Cooks, Short Order &/or Specialty Fast Foods	17	19	2	3	5
Cooks, Restaurant (Exc. Supervisory Chefs)	53	60	7	8	15
Cooks, Institution	53	60	7	8	15
All Other Food Service Workers	16	17	1	3	4
Supervisors, Nonworking	11	12	1	1	2
Housekeepers	4	4	0	1	1
Child-Care Workers	26	29	3	7	10
Social Service Aides	111	125	14	20	34
All Other Service Workers	157	177	20	32	52
TOTAL MAINTENANCE & PRODUCTION WORKERS	687	775	88	75	163
All Mechanics & Repairers	54	60	6	4	10
Electricians	12	14	2	1	3
Supervisors, Nonworking	23	26	3	3	6
Maintenance Repairers, General Utility	146	165	19	14	33
All Other Skilled Craft Workers	137	154	17	16	33
All Operatives & Semiskilled Workers	280	316	36	32	68
All Other Laborers & Unskilled Workers	35	40	5	5	10
TOTAL CLERICAL WORKERS	832	939	107	183	290
All Office Machine Operators	27	31	4	6	10
Stenographers	33	37	4	7	11
Accounting Clerks	40	45	5	8	13
Bookkeepers, Hand	16	18	2	3	5
Cashiers	5	6	1	1	2
General Clerks, Office	119	134	15	26	41
Desk Clerks	26	29	3	5	8

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

APACHE COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Personnel Clerks	48	54	6	13	19
Receptionists	16	18	2	4	6
Secretaries	177	200	23	41	64
Statistical Clerks	24	27	3	5	8
Switchboard Operator-Receptionists	8	9	1	2	3
Typists (Inc. Clerk Typists)	112	127	15	29	44
Teacher's Aides &/or Ed. Assistants	72	81	9	13	22
All Other Office Clerical Workers	76	86	10	16	26
All Other Plant Clerical Workers	33	37	4	4	8
TOTAL SALES WORKERS	10	11	1	1	2
Sales Clerks (Exc. Cashiers)	10	11	1	1	2
TOTAL ALL OCCUPATIONS	3,641	4,109	468	606	1,074

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Engineers
Civil Engineers
Electrical & Electronic Engineers

All Natural & Mathematical Scientists
Statisticians

All Social Scientists
Economists
Psychologists

All Teachers
Teachers, Voc. Ed. or Training
Teachers, Adult Education
Teachers, Elementary &/or Preschool

All Other Professional Workers
Systems Analysts, EDP
Dietitians &/or Nutritionists
Writers &/or Editors
Lawyers
Librarians, Professional
Curators, Museum
Physicians &/or Surgeons
Public-Relations Practitioners
Veterinarians
Group Recreation Workers

TECHNICAL WORKERS

All Other Engineering Technicians
Computer Programmers
Surveyors (Exc. Surveyor Helpers)

All Medical & Dental Technicians
Licensed Practical Nurses

All Other Technicians
Science Technicians
Licensed Practical Nurses
Technical Assistants, Library

SERVICE WORKERS

All Other Janitors, Porters & Cleaners
Janitors, Porters & Cleaners
House Cleaners

All Other Food Service Workers
Food Service Workers (Exc. Cashiers)
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop
Food Prep. & Service Wkrs., Fast Food Restrn.

All Other Service Workers
Cosmetologists &/or Women's Hairstylists
Nurse's Aides &/or Orderlies
Ushers, Lobby Attendants & Ticket Takers
Medical Assistants

MAINTENANCE & PRODUCTION WORKERS

All Mechanics & Repairers
Mechanics, Automotive
Laundry-Machine Mechanics
Mechanics, Maintenance (Exc. Millwrights
Coin/Vending-Machine Servicers & Repairers

All Other Skilled Craft Workers
Dry-Cleaning-Machine Operators
Laundry Operators, Small Establishment
Truck Drivers
Bus Drivers
Carpenters (Exc. Cabinetmakers)
Plumbers &/or Pipefitters
Press Operators &/or Plate Printers
Bus Drivers, School

All Other Operatives & Semiskilled Workers
Industrial Truck Operators
Inspectors
Surveyor Helpers
Chauffeurs

All Other Laborers & Unskilled Workers
Painters, Maintenance (Exc. Production Painters)

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

APACHE COUNTY (CONTD.)

CLERICAL WORKERS

All Office Machine Operators
Computer Operators
Key punch Operators

All Other Office Clerical Workers
Counter Clerks
File Clerks
Mail Clerks

CLERICAL WORKERS (CONTD.)

Insurance Clerks, Medical
Payroll &/or Timekeeping Clerks
Switchboard Operators
Clerical Supervisors, Office or Plant

All Other Plant Clerical Workers
Stock Clerks, Stockroom, Warehouse or Storage Yard
Dispatchers, Vehicle, Service or Work

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

COCHISE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	241	271	30	35	65
TOTAL PROFESSIONAL WORKERS	242	271	29	33	62
All Engineers	26	29	3	2	5
Teachers, Elementary &/or Preschool	1	12	1	2	3
All Photographers	1	1	0	0	0
Accountants & Auditors	27	30	3	4	7
Dentists	8	9	1	1	2
Embalmers	8	9	1	1	2
Nurses, Professional (Exc. Practical Nurses)	33	38	5	6	11
Physicians &/or Surgeons	33	38	5	5	10
Community Organization Workers	7	8	1	1	2
All Other Professional Workers	88	97	9	11	20
TOTAL TECHNICAL WORKERS	97	109	12	20	32
Drafter	10	11	1	1	2
Surveyors (Exc. Surveyor Helpers)	10	11	1	1	2
All Other Engineering Technicians	5	5	0	0	0
Dental Assistants	30	34	4	8	12
Licensed Practical Nurses	8	9	1	2	3
Physician's Assistants	3	3	0	1	1
Radiologic Technicians	4	5	1	1	2
Dental Hygienists	12	14	2	3	5
Medical Laboratory Technologists	4	5	1	1	2
Medical Laboratory Technicians	9	10	1	2	3
All Medical & Dental Technicians	1	1	0	0	0
All Other Technicians	1	1	0	0	0
TOTAL SERVICE WORKERS	672	752	80	128	208
Janitors, Porters & Cleaners	13	15	2	2	4
Maids	113	125	12	27	39
All Other Janitors, Porters & Cleaners	34	39	5	6	11
All Guards & Doorkeepers	28	32	4	2	6
Bartenders	79	88	9	12	21
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	16	18	2	1	3
Kitchen Helpers	36	40	4	7	11
Waiters or Waitresses	70	78	8	16	24
Cooks, Restaurant (Exc. Supervisory Chefs)	27	30	3	4	7
Cooks, Institution	18	20	2	3	5
All Other Food Service Workers	29	32	3	4	7
Cosmetologists &/or Women's Hairstylists	68	77	9	18	27
Funeral Attendants	3	3	0	0	0
Housekeepers	35	39	4	7	11
Medical Assistants	18	21	3	4	7
All Other Service Workers	85	95	10	15	25
TOTAL MAINTENANCE & PRODUCTION WORKERS	223	250	27	24	51
Mechanics, Automotive	24	27	3	2	5
Body Repairers, Automotive	12	13	1	1	2
All Other Mechanics & Repairers	21	23	2	2	4
Cleaners, Vehicle	8	9	1	0	1
Maintenance Repairers, General Utility	25	28	3	2	5
Surveyor Helpers	12	13	1	1	2
Gardeners & Groundskeepers	28	32	4	5	9
All Other Skilled Craft Workers	42	47	5	5	10
All Other Operatives & Semiskilled Workers	44	50	6	6	12
All Other Laborers & Unskilled Workers	7	8	1	0	1

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

COCHISE COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL CLERICAL WORKERS	464	520	56	103	159
Computer Operators	18	20	2	2	4
All Other Office Machine Operators	11	12	1	3	4
Accounting Clerks	40	45	5	8	13
File Clerks	6	7	1	2	3
General Clerks, Office	39	44	5	9	14
Desk Clerks	66	73	7	14	21
Insurance Clerks, Medical	8	9	1	2	3
Payroll &/or Timekeeping Clerks	5	6	1	1	2
Receptionists	51	58	7	14	21
Secretaries	90	101	11	21	32
Switchboard Operator-Receptionists	9	10	1	2	3
Clerical Supervisors, Office or Plant	3	3	0	0	0
Teacher's Aides &/or Educational Assistants	10	11	1	2	3
All Other Office Clerical Workers	108	121	13	23	36
TOTAL SALES WORKERS	17	19	2	2	4
Sales Reps., Agents &/or Associates	15	17	2	2	4
All Other Sales Workers	2	2	0	0	0
TOTAL ALL OCCUPATIONS	1,956	2,192	236	345	581

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Engineers
Electrical & Electronic Engineers

All Other Professional Workers
Systems Analysts, Scientific & Technical
Architects (Exc. Landscape Architects)
Athletes
Caseworkers
Cost Estimators
Writers &/or Editors
Employment Interviewers
Law Clerks
Lawyers
Librarians, Professional
Optometrists (Exc. Opticians)
Personnel & Labor Relations Specialists
Physical Therapists
Public-Relations Practitioners
Tax Preparers
Respiratory Therapists

TECHNICAL WORKERS

All Other Engineering Technicians
Computer Programmers, Business
Computer Programmers, Scientific & Technical

SERVICE WORKERS

All Other Food Service Workers
Food Service Workers (Exc. Cashiers)
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop
Counter Attends., Lunch, Coffee Shop or Cafeteria
Cooks, Short Order &/or Specialty Fast Foods
Pantry, Sandwich &/or Coffee Makers

SERVICE WORKERS (CONTD.)

All Other Service Workers
Child-Care Attendants
Barbers
Bellhops, Porters, Doorkeepers & Rm. Srvce. Attnds.
Supervisors, Nonworking-Service
Nurse's Aides &/or Orderlies
Recreation Facility Attendants
Bootblacks
Guides, Sightseeing or Establishment
Child-Care Workers
Social Service Aides

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Electric-Motor Repairers
Mechanics, Maintenance (Exc. Millwrights)
TV, Radio &/or Tape Recorder Srvcs. & Repairers

All Other Skilled Craft Workers
Developers &/or Projection Printers
Dry-Cleaning-Machine Operators
Pressers, Machine, Laundry
Shoe Repairers
Supervisors, Nonworking
Machinists
Photo Retouchers, Colorists & Airbrush Artists
Painters, Automotive
Motion Picture Projectionists
Dental-Laboratory Technicians
Sign Erectors
Opticians, Dispensing &/or Optical Mechanics
Furniture Upholsterers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

COCHISE COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Washers, Machine &/or Starchers
Laundry Operators, Small Establishment
Pressers, Hand
Pressers, Machine (Exc. Laundry Pressers, Machine)
Delivery & Route Workers
Tire Fabricators &/or Repairers
Welders & Flamecutters

All Other Laborers & Unskilled Workers
Trades Helpers
Pin Chasers

CLERICAL WORKERS

All Other Office Machine Operators
Bookkeeping &/or Billing Machine Operators
Keypunch Operators

All Other Clerical Workers
Bookkeepers, Hand
Call-Out Operators
Cashiers (Inc. Cashier-Checkers)
Collectors
Counter Clerks
Credit Reporters
Typists (Inc. Clerk-Typists)

ESTIMATED EMPLOYMENT AND JO3 OPENINGS
SERVICES

COCONINO COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	706	823	117	103	220
TOTAL PROFESSIONAL WORKERS	1,506	1,761	255	219	474
All Engineers	29	33	4	3	7
All Physical Scientists	9	11	2	1	3
All Natural & Mathematical Scientists	42	49	7	5	12
All Social Scientists	247	288	41	14	55
Teachers, Elementary &/or Preschool	96	112	16	18	34
All Other Teachers	234	274	40	46	86
All Photographers	13	15	2	1	3
Purchasing Agents &/or Buyers	7	8	1	1	2
Accountants & Auditors	58	68	10	9	19
Dentists	9	11	2	1	3
Writers &/or Editors	3	4	1	1	2
Lawyers	24	28	4	3	7
Librarians, Professional	3	4	1	1	2
Nurses, Professional (Exc. Practical Nurses)	41	49	8	8	16
Paralegal Personnel	19	22	3	2	5
Personnel & Labor Relations Specialists	10	12	2	1	3
Physicians &/or Surgeons	34	41	7	5	12
Sports Instructors	43	50	7	5	12
Community Organization Workers	113	132	19	21	40
Group Recreation Workers	66	77	11	10	21
All Other Professional Workers	406	473	67	63	130
TOTAL TECHNICAL WORKERS	174	207	33	29	62
Drafters	21	25	4	2	6
All Other Engineering Technicians	34	40	6	1	7
All Science Technicians	7	8	1	1	2
Dental Assistants	39	47	8	11	19
Dental Hygienists	20	24	4	5	9
Medical Laboratory Technicians	7	8	1	2	3
All Other Medical & Dental Technicians	9	11	2	3	5
All Other Technicians	37	44	7	4	11
TOTAL SERVICE WORKERS	2,874	3,327	453	558	1,011
Janitors, Porters & Cleaners	19	22	3	4	7
Maids	617	708	91	151	242
House Cleaners	52	61	9	11	20
All Other Janitors, Porters & Cleaners	149	173	24	28	52
Guards & Doorkeepers	79	93	14	5	19
Bartenders	74	85	11	11	22
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	127	146	19	7	26
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop	39	45	6	9	15
Kitchen Helpers	191	219	28	35	63
Waiters or Waitresses	351	402	51	79	130
Counter Attends., Lunch, Coffee Shop or Cafeteria	41	47	6	10	16
Cooks, Short Order &/or Specialty Fast Food	62	72	10	10	20
Cooks, Restaurant (Exc. Supervisory Chefs)	162	187	25	25	50
Pantry, Sandwich &/or Coffee Makers	33	38	5	6	11
Cooks, Institution	47	55	8	7	15
All Other Food Service Workers	46	53	7	7	14
Barbers	16	19	3	3	6
Bellhops, Porters, Doorkprs., & Rm. Srvc. Attdts.	26	30	4	2	6
Cosmetologists &/or Women's Hairstylists	46	54	8	12	20

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

COCONINO COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Supervisors, Nonworking-Service	38	44	6	4	10
Housekeepers	42	48	6	9	15
Recreation Facility Attendants	57	67	10	9	19
Ushers, Lobby Attendants, Ticket Takers	21	25	4	3	7
Child-Care Workers	60	70	10	16	26
Social Service Aides	157	184	27	29	56
Medical Assistants	26	31	5	6	11
All Other Service Workers	296	349	3	60	113
TOTAL MAINTENANCE & PRODUCTION WORKERS	1,066	1,242	176	131	307
Mechanics, Automotive	85	99	14	7	21
Mechanics, Maintenance (Exc. Millwrights)	23	27	4	2	6
All Other Mechanics & Repairers	79	91	12	5	17
All Darkroom Workers	19	23	4	2	6
Laundry Operators, Small Establishments	60	69	9	15	24
Pressers, Machine (Exc. Laundry Pressers, Machine)	6	7	1	1	2
Pressers, Machine, Laundry	15	18	3	4	7
Truck Drivers	13	15	2	1	3
Bus Drivers	89	103	14	12	26
Carpenters	12	14	2	2	4
Cleaners, Vehicle	29	34	5	2	7
Delivery & Route Workers	42	49	7	3	10
Electricians	14	16	2	1	3
Supervisors, Nonworking	17	20	3	2	5
Folders, Laundry	13	15	2	3	5
Maintenance Repairers, General Utility	121	139	18	11	29
Painters, Maintenance	9	10	1	1	2
Plumbers &/or Pipefitters	15	17	2	2	4
Opticians, Dispensing &/or Optical Mechanics	4	5	1	1	2
Gardeners & Groundskeepers	62	72	10	12	22
Bus Drivers, School	80	94	14	11	25
All Other Skilled Craft Workers	51	62	11	5	16
All Other Operatives & Semiskilled Workers	102	120	18	14	32
All Other Laborers & Unskilled Workers	106	123	17	12	29
TOTAL CLERICAL WORKERS	1,779	2,075	296	386	682
Bookkeeping &/or Billing Machine Operators	7	8	1	1	2
All Other Office Machine Operators	5	5	0	0	0
Accounting Clerks	91	106	15	18	33
Bookkeepers, Hand	98	115	17	20	37
Cashiers (Inc. Cashier-Checkers)	161	186	25	34	59
Counter Clerks	27	32	5	6	11
General Clerks, Office	125	147	22	28	50
Desk Clerks	223	256	33	48	81
Insurance Clerks, Medical	13	16	3	3	6
Payroll &/or Timekeeping Clerks	11	13	2	2	4
Personnel Clerks	26	30	4	7	11
Receptionists	103	122	19	28	47
Secretaries	257	301	44	60	104
Switchboard Operators	17	20	3	5	8
Travel Clerks	8	9	1	2	3
Typists (Inc. Clerk-Typists)	208	243	35	55	90
Clerical Supervisors, Office or Plant	68	79	11	8	19
Teacher's Aides &/or Ed. Assistants	217	254	37	39	76
All Other Office Clerical Workers	78	91	13	18	31
Stock Clerks	33	38	5	4	9
All Other Plant Clerical Workers	3	4	1	0	1

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

COCONINO COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL SALES WORKERS	211	244	33	28	61
Sales Reps., Agents &/or Associates	23	27	4	3	7
Sales Clerks (Exc. Cashiers)	184	212	28	24	52
All Other Sales Workers	4	5	1	1	2
TOTAL ALL OCCUPATIONS	8,316	9,679	1,363	1,454	2,817

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Engineers
Civil Engineers
Electrical & Electronic Engineers
Mechanical Engineers

All Natural & Mathematical Scientists
Statisticians
Biological Scientists

All Social Scientists
Psychologists
Urban & Regional Planners

All Other Teachers
Teachers, Voc. Ed. or Training
Teachers, Adult Education
Vocational & Educational Counselors

All Other Professional Workers
Systems Analysts, EDP
Systems Analysts, Business
Systems Analysts, Scientific & Technical
Architects (Exc. Landscape Architects)
Archivists
Budget Analysts
Media Buyers
Caseworkers
Chiropractors
Commercial Artists
Dance Instructors
Dietitians &/or Nutritionists
Embalmers
Employment Interviewers
Law Clerks
Optometrists (Exc. Opticians)
Physical Therapists
Public-Relations Practitioners
Designers (Exc. Design Engineers)
Tax Preparers

TECHNICAL WORKERS

All Other Engineering Technicians
Computer Programmers
Computer Programmers, Business
Engineering Technicians
Electrical & Electronic Technicians
Surveyors (Exc. Surveyor Helpers)

TECHNICAL WORKERS (CONTD.)

All Other Medical & Dental Technicians
Physician's Assistants
Radiologic Technicians
Medical Laboratory Technologists

All Other Technicians
Museum Technicians &/or Restorers
Technical Assistants, Library

SERVICE WORKERS

All Other Food Service Workers
Bakers, Bread &/or Pastry
Butchers &/or Meat Cutters
Food Prep. & Service Wrkrs., Fast Food Restrnt.

All Other Service Workers
Child-Care Attendants
Detectives
Funeral Attendants
Nurse's Aides &/or Orderlies
Psychiatric Aides
Game & Ride Operators & Concession Workers
Instructors, Reducing
Guides, Sightseeing or Establishment
Mortuary Beauticians

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Body Repairers, Automotive
Diesel Mechs. (Exc. Auto & Engineering Equip.)
Laundry-Machine Mechanics
Pinsetter Mechanics, Automatic
Office Machine &/or Cash Register Servicers
Refrigeration/Air Conditioning Mechanics
TV, Radio &/or Tape Recorder Svcs. & Repairers
Data Processing Machine Repairers
Gas & Electric Appliance Repairers

All Other Skilled Craft Workers
Spotters, Dry Cleaning
Dry-Cleaning-Machine Operators
Machinists
Painters, Automotive
Motion Picture Projectionists
Dental Laboratory Technicians
Sign Erectors

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

COCONINO COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Stationary Engineers
Welders & Flamecutters
Furniture Upholsterers

All Other Operatives & Semiskilled Workers
Markers, Classifiers & Wet Wash Assemblers
Washers, Machine &/or Starchers
Pressers, Hand
Inspectors
Menders (Exc. Seamstress & Alteration Tailors)
Stationary Boiler Firers
Fuel Pump Attendants &/or Lubricators
Surveyor Helpers
Septic Tank Servicers &/or Sewer Pipe Cleaners
Saw Filers
Chauffeurs

All Other Laborers & Unskilled Workers
Trades Helpers
Production Packagers
Animal Caretakers
Pin Chasers

CLERICAL WORKERS

All Other Office Machine Operators
Computer Operators
Keypunch Operators

All Other Office Clerical Workers
Stenographers
Car Rental Clerks
Collectors
Desk Clerks, Bowling Floor
File Clerks
Library Assistants (Exc. Techs.)
Mail Clerks
Statistical Clerks
Switchboard Operator-Receptionists
Messengers

SALES WORKERS

All Other Sales Workers
Vendors

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

GILA COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	196	222	26	28	54
TOTAL PROFESSIONAL WORKERS	167	188	21	22	43
All Natural & Mathematical Scientists	3	3	0	0	0
All Social Scientists	4	5	1	0	1
All Teachers	9	10	1	1	1
Accountants & Auditors	22	25	3	3	6
Nurses, Professional (Exc. Practical Nurses)	12	14	2	2	4
Physicians & Surgeons	15	17	2	2	4
All Other Professional Workers	102	114	12	14	26
TOTAL TECHNICAL WORKERS	34	39	5	8	13
All Engineering Technicians	2	2	0	0	0
Dental Assistants	9	10	1	3	4
Licensed Practical Nurses	13	15	2	3	5
All Other Medical & Dental Technicians	10	12	2	2	4
TOTAL SERVICE WORKERS	477	536	59	93	152
Maids	51	56	5	12	17
House Cleaners	10	11	1	2	3
All Other Janitors, Porters & Cleaners	63	71	8	11	19
All Guards & Doorkeepers	14	16	2	1	3
Bartenders	18	20	2	3	5
Kitchen Helpers	24	27	3	4	7
Waiters & Waitresses	33	37	4	7	11
Cooks, Short Order &/or Specialty Fast Foods	14	16	2	2	4
Cooks, Restaurant (Exc. Supervisory Chefs)	12	13	1	2	3
Cooks, Institution	15	17	2	2	4
All Other Food Service Workers	11	12	1	1	2
Cosmetologists &/or Women's Hairstylists	25	28	3	7	10
Medical Assistants	12	14	2	3	5
All Other Service Workers	175	198	23	36	59
MAINTENANCE & PRODUCTION WORKERS	118	131	13	11	24
Mechanics, Automotive	15	17	2	1	3
All Other Mechanics & Repairers	11	12	1	1	2
Maintenance Repairers, General Utility	26	29	3	2	5
Gardeners & Groundskeepers	9	10	1	2	3
All Other Skilled Craft Workers	23	25	2	2	4
All Other Operatives & Semiskilled Workers	20	23	3	2	5
All Other Laborers & Unskilled Workers	14	15	1	1	2
TOTAL CLERICAL WORKERS	390	440	50	85	135
All Office Machine Operators	1	1	0	0	0
Bookkeepers, Hand	22	25	3	4	7
General Clerks, Office	42	48	6	9	15
Desk Clerks	21	23	2	4	6
Insurance Clerks, Medical	9	10	1	2	3
Receptionists	25	29	4	7	11
Secretaries	65	74	9	15	24
Typists (Inc. Clerk-Typists)	68	77	9	18	27
All Other Office Clerical Workers	134	150	16	26	42
All Plant Clerical Workers	3	3	0	0	0
TOTAL SALES WORKERS	44	50	6	6	12
TOTAL ALL OCCUPATIONS	1,426	1,606	180	253	433

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

GILA COUNTY (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

- All Teachers
 - Vocational & Educational Counselors
 - Teachers, Elementary &/or Preschool
- All Other Professional Workers
 - Purchasing Agents &/or Buyers
 - Caseworkers
 - Dentists
 - Dietitians &/or Nutritionists
 - Lawyers
 - Librarians, Professional
 - Optometrists (Exc. Opticians)
 - Personnel & Labor Relations Specialists
 - Public-Relations Practitioners
 - Community Organization Workers
 - Group Recreation Workers

TECHNICAL WORKERS

- All Other Medical & Dental Technicians
 - Radiologic Technicians
 - Dental Hygienists
 - Medical Laboratory Technicians

SERVICE WORKERS

- All Other Food Service Workers
 - Bakers, Bread &/or Pastry
 - Dining Rm./Cafeteria Attends. & Bartdr. Helpers
 - Hosts/Hostesses, Restaurant, Lounge or Coffee Shop
 - Counter Attends., Lunch, Coffee Shop or Cafeteria
- All Other Service Workers
 - Child-Care Attendants
 - Funderal Attendants
 - Housekeepers
 - Nurse's Aides &/or Orderlies
 - Recreation Facility Attendants
 - Ushers, Lobby Attendants & Ticket Takers
 - Child-Care Workers
 - Lifeguards
 - Social Service Aides

MAINTENANCE & PRODUCTION WORKERS

- All Other Mechanics & Repairers
 - Body Repairers, Automotive
- All Other Skilled Craft Workers
 - Bus Drivers
 - Carpenters (Exc. Cabinetmakers)
 - Electricians
 - Supervisors, Nonworking
 - Machinists
 - Painters, Automotive
 - Plumbers &/or Pipefitters
 - Opticians, Dispensing &/or Optical Mechanics
- All Other Operatives & Semiskilled Workers
 - Laundry Operators, Small Establishments
 - Surveyor Helpers
- All Other Laborers & Unskilled workers
 - Trades Helpers
 - Painters, Maintenance (Exc. Production Painter)

CLERICAL WORKERS

- All Other Office Clerical Workers
 - Stenographers
 - Accounting Clerks
 - Cashiers (Inc. Cashier-Checkers)
 - Collectors
 - File Clerks
 - Mail Clerks
 - Order Clerks
 - Payroll &/or Timekeeping Clerks
 - Personnel Clerks
 - Statistical Clerks
 - Switchboard Operators
 - Switchboard Operator-Receptionists
 - Clerical Supervisors, Office or Plant
 - Teacher's Aides &/or Educational Assistants

SALES WORKERS

- Sales Clerks (Exc. Cashiers)

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

GRAHAM & GREENLEE COUNTIES

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	50	57	7	7	14
TOTAL PROFESSIONAL WORKERS	69	75	6	6	12
All Teachers	6	6	0	0	0
Accountants & Auditors	6	6	0	0	0
Nurses, Professional (Exc. Practical Nurses)	23	27	4	5	9
Physicians &/or Surgeons	10	11	1	1	2
All Other Professional Workers	24	25	1	0	1
TOTAL TECHNICAL WORKERS	43	48	5	9	14
All Engineering Technicians	6	6	0	0	0
Dental Assistants	18	21	3	5	8
Licensed Practical Nurses	8	9	1	2	3
Dental Hygienists	3	3	0	1	1
All Other Medical & Dental Technicians	8	9	1	1	2
TOTAL SERVICE WORKERS	257	292	35	53	88
Maids	38	43	5	10	15
All Other Janitors, Porters & Cleaners	12	13	1	2	3
Bartenders	16	18	2	3	5
Kitchen Helpers	22	25	3	4	7
Waiters or Waitresses	52	60	8	12	20
Cooks, Restaurant (Exc. Supervisory Chefs)	20	23	3	3	6
All Other Food Service Workers	25	28	3	4	7
Cosmetologists &/or Women's Hairstylists	15	17	2	4	6
Medical Assistants	6	7	1	1	2
All Other Service Workers	51	58	7	10	17
TOTAL MAINTENANCE & PRODUCTION WORKERS	68	74	6	5	11
Mechanics, Automotive	6	7	1	0	1
Body Repairers, Automotive	9	10	1	1	2
All Other Mechanics & Repairers	9	10	1	0	1
Gardeners & Groundskeepers	4	4	0	0	0
All Other Skilled Craft Workers	11	12	1	1	2
All Operatives & Semiskilled Workers	25	27	2	3	5
All Other Laborers & Unskilled Workers	4	4	0	0	0
TOTAL CLERICAL WORKERS	125	140	15	26	41
All Office Machine Operators	4	4	0	0	0
Bookkeepers, Hand	15	17	2	3	5
File Clerks	5	5	0	2	2
General Clerks, Office	11	12	1	2	3
Desk Clerks	10	12	2	2	4
Insurance Clerks, Medical	4	5	1	1	2
Receptionists	19	22	3	5	8
Secretaries	22	25	3	5	8
All Other Office Clerical Workers	35	38	3	6	9
TOTAL ALL OCCUPATIONS	612	686	74	106	180

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Caseworkers
Dentists
Dietitians &/or Nutritionists
Embalmers
Musicians, Instrumental
Optometrists (Exc. Opticians)

PROFESSIONAL WORKERS (CONTD.)

Personnel & Labor Relations Specialists
Public Relations Practitioners
Community Organization Workers
Tax Preparers
Manual-Arts, Music &/or Recreation Therapists
Corrective Therapists

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

GRAHAM & GREENLEE COUNTIES (CONTD.)

TECHNICAL WORKERS

All Other Medical & Dental Technicians
Physician's Assistants
Radiologic Technicians
Medical Laboratory Technologists
Medical Laboratory Technicians

SERVICE WORKERS

All Other Food Service Workers
Dining Rm./Cafeteria Attends. & Bartdr. Helpers
Counter Attends., Lunch, Coffee Shop or Cafeteria
Cooks, Short Order &/or Specialty Fast Foods
Cooks, Institution

All Other Service Workers
Bellhops, Porters, Doorkpr. & Rm. Srvce. Attdts.
Supervisors, Nonworking-Service
Funeral Attendants
Housekeepers
Nurse's Aides &/or Orderlies
Child-Care Workers

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Electric-Motor Repairers
Pinsetter Mechanics, Automatic

All Skilled Craft Workers
Bus Drivers
Maintenance Repairers, General Utility
Motion Picture Projectionists
Alteration Tailors (Exc. Menders & Custom Sewers)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Operatives & Semiskilled Workers
Washers, Machine &/or Starchers
Laundry Operators, Small Establishment
Pressers, Hand
Pressers, Machine (Exc. Laundry Pressers, Machine)
Delivery & Route Workers
Exterminators
Inspectors
Glass Installers
Chauffeurs

All Other Laborers & Unskilled Workers
Painters, Maintenance (Exc. Production Painters)
Pin Chasers

CLERICAL WORKERS

All Other Office Clerical Workers
Stenographers
Accounting Clerks
Call-Out Operators
Cashiers
Counter Clerks
Credit Reporters
In-File Operators
Payroll &/or Timekeeping Clerks
Personnel Clerks
Switchboard Operator-Receptionists
Typists (Inc. Clerx-Typists)
Clerical Supervisors
Teacher's Aides &/or Ed. Assistants

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MARICOPA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	10,986	13,548	2,562	1,627	4,189
TOTAL PROFESSIONAL WORKERS	18,073	22,228	4,155	2,615	6,770
Engineers (Inc. Sales Engineers)	73	91	18	5	23
Civil Engineers	437	542	105	60	165
Electrical & Electronic Engineers	553	679	126	34	160
Mechanical Engineers	275	339	64	18	82
All Other Engineers	172	213	41	12	53
Financial Analysts	49	60	11	5	16
Statisticians	20	24	4	3	7
Chemists	23	28	5	3	8
Geologists & Geophysicists	22	27	5	2	7
All Other Natural & Mathematical Scientists	39	48	9	6	15
Market Research Analysts	161	197	36	18	54
Psychologists	119	145	26	11	37
Sociologists (Exc. Caseworkers)	11	14	3	1	4
Urban & Regional Planners	10	12	2	1	3
All Other Social Scientists	31	38	7	3	10
Systems Analysts, EDP	48	60	12	2	14
Systems Analysts, Business	347	425	78	16	94
Systems Analysts, Scientific & Technical	89	109	20	4	24
Teachers, Voc. Ed. or Training	110	137	27	23	50
Teachers, Adult Education	181	225	44	21	65
Vocational & Educational Counselors	169	209	40	25	65
Teachers, Elementary & Preschool	714	886	172	139	311
All Other Teachers	86	107	21	20	41
Photographers	56	68	12	6	18
Photographers, Portrait &/or Commercial	157	195	38	17	55
All Other Photographers	31	38	7	3	10
Purchasing Agents &/or Buyers	128	158	30	17	47
Accountants & Auditors	1,873	2,320	447	288	735
Actors or Actresses	53	66	13	6	19
Landscape Architects	62	77	15	8	23
Architects (Exc. Landscape Architects)	318	395	77	43	120
Announcers	4	5	1	0	1
Athletes	32	40	8	4	12
Budget Analysts	18	22	4	3	7
Media Buyers	40	49	9	6	15
Directors, Camp	6	7	1	1	2
Caseworkers	519	639	120	96	216
Chiropractors	61	74	13	19	32
Clergy	79	98	19	13	32
Commercial Artists	290	354	64	53	117
Cost Estimators	7	9	2	2	4
Dance Instructors	146	181	35	34	69
Dancers	27	34	7	9	16
Dentists	473	572	99	48	147
Dietitians &/or Nutritionists	70	86	16	15	31
Writers &/or Editors	142	174	32	26	58
Embalmers	70	87	17	7	24
Employment Interviewers	485	592	107	59	166
Law Clerks	152	189	37	17	54
Lawyers	1,568	1,946	378	178	556
Librarians, Professional	28	35	7	7	14
Media Analysts	17	21	4	2	6
Curators, Museum	6	7	1	1	2
Music Directors	6	7	1	1	2
Musicians, Instrumental	397	493	96	60	156
Nurses, Professional (Exc. Practical Nurses)	2,101	2,555	454	418	872
Occupational Therapists	35	42	7	6	13

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Optometrists (Exc. Opticians)	117	141	24	18	42
Paralegal Personnel	307	381	74	34	108
Personnel & Labor Relations Specialists	350	433	83	43	126
Physical Therapists	193	234	41	31	72
Physicians &/or Surgeons	1,316	1,591	275	201	476
Podiatrists	72	87	15	14	29
Public-Relations Practitioners	198	245	47	31	78
Reporters & Correspondents	28	34	6	5	11
Sports Instructors	229	285	56	26	82
Singers	6	7	1	1	2
Designers (Exc. Design Engineers)	243	299	56	21	77
Community Organization Workers	193	240	47	36	83
All Therapists	28	34	6	5	11
Tax Preparers	237	294	57	36	93
Group Recreation Workers	343	425	82	51	133
Manual-Arts, Music &/or Recreation Therapists	4	5	1	1	2
Speech Pathologists &/or Audiologists	16	19	3	3	6
All Other Professional Workers	997	1,224	227	153	380
TOTAL TECHNICAL WORKERS	7,432	9,077	1,645	1,234	2,879
Computer Programmers	84	105	21	4	25
Computer Programmers, Business	445	543	98	23	121
Computer Programmers, Scientific & Technical	40	49	9	2	11
Engineering Technicians	76	95	19	7	26
Drafters	1,382	1,712	330	117	447
Electrical & Electronic Technicians	323	398	75	19	94
Surveyors (Exc. Surveyor Helpers)	278	344	66	19	85
Mechanical Engineering Technicians	19	23	4	1	5
Specification Writers, Engineering	9	11	2	1	3
Civil Engineering Technicians	157	194	37	22	59
All Other Engineering Technicians	247	302	55	27	82
Science Technicians	35	43	8	3	11
Dental Assistants	1,020	1,233	213	288	501
Licensed Practical Nurses	1,154	1,404	250	266	516
Physician's Assistants	60	73	13	14	27
Radiological Technicians	323	391	68	54	122
Medical-Record Librarians	31	38	7	8	15
Dental Hygienists	481	582	101	111	212
Medical Laboratory Technologists	290	351	61	55	116
Microbiology Technologists	27	33	6	5	11
Cytotechnologists	15	18	3	3	6
Histologic Technologists	20	24	4	4	8
Medical Laboratory Technicians	307	371	64	73	137
Electrocardiograph Technicians	53	64	11	8	19
Dietetic Technicians	17	21	4	4	8
Blood Bank Technology Specialists	48	58	10	7	17
Physical Therapy Assistants	156	189	33	13	46
Radiologic &/or Nuclear Medical Technicians	41	50	9	7	16
All Other Medical & Dental Technicians	95	115	20	46	66
All Other Technicians	199	243	44	23	67
TOTAL SERVICE WORKERS	30,665	37,911	7,246	5,925	13,171
Janitors, Porters & Cleaners	152	189	37	29	66
Maids	3,051	3,809	758	767	1,525
House Cleaners	832	1,029	197	183	380
All Other Janitors, Porters & Cleaners	3,517	4,308	791	660	1,451
Guards & Doorkeepers	3,060	3,747	687	184	871
Food Service Workers (Exc. Cashiers)	192	235	43	36	79
Bakers, Bread &/or Pastry	26	33	7	5	12
Bartenders	652	814	162	98	260

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	913	1,143	230	54	284
Butchers &/or Meat Cutters	11	14	3	1	4
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop	192	241	49	44	93
Kitchen Helpers	1,248	1,548	300	234	534
Waiters or Waitresses	2,447	3,061	614	563	1,177
Counter Attends., Lunch, Coffee Shop, or Cafeteria	207	258	51	50	101
Cooks Short Order &/or Specialty Fast Foods	182	226	44	29	73
Cooks, Restaurant (Exc. Supervisory Chefs)	653	818	165	105	270
Food Prep. & Service Workers, Fast Food Restrnt.	148	184	36	28	64
Pantry, Sandwich &/or Coffee Makers	208	260	52	39	91
Cooks, Institution	367	453	86	59	145
All Other Food Service Workers	110	135	25	21	46
Child Care Attendants	341	423	82	95	177
Barbers	456	566	110	78	188
Bellhops, Porters, Doorkprs, & Rm. Srvc. Attdts.	257	323	66	19	85
Cosmetologists &/or Women's Hairstylists	2,423	3,007	584	665	1,249
Detectives	58	71	13	3	16
Supervisors, Nonworking-Service	513	635	122	59	181
Funeral Attendants	55	68	13	3	16
Housekeepers	316	393	77	66	143
Manicurists	173	215	42	47	89
Masseurs or Masseuses	33	41	8	7	15
Nurse's Aides &/or Orderlies	2,210	2,685	475	500	975
Protective-Signal Operators	56	68	12	12	24
Recreation Facility Attendants	803	997	194	122	316
Game & Ride Operators & Concession Workers	487	604	117	79	196
Scalp Treatment Operators	14	17	3	4	7
Ushers, Lobby Attendants, Ticket Takers	236	293	57	35	92
Wig Dressers	18	22	4	5	9
Shampooers	57	71	14	16	30
Instructors, Reducing	365	453	88	76	164
Child-Care Workers	1,026	1,273	247	286	533
Lifeguards	109	136	27	17	44
Checkroom & Locker Room Attendants	113	140	27	24	51
Social Service Aides	251	311	60	47	107
Medical Assistants	1,033	1,249	216	244	460
Occupational Therapy Aides	8	10	2	2	4
Mortuary Beauticians	6	7	1	1	2
All Other Service Workers	1,080	1,328	248	224	472
TOTAL MAINTENANCE & PRODUCTION WORKERS	17,755	21,923	4,168	2,194	6,362
Protective-Signal Installers &/or Repairers	89	109	20	5	25
Mechanics, Automotive	1,217	1,509	292	103	395
Body Repairers, Automotive	403	500	97	33	130
Diesel Mechs. (Exc. Auto & Eng. Equip. Mechs.)	180	222	42	16	58
Electric-Motor Repairers	218	270	52	21	73
Electric-Tool Repairers	17	21	4	2	6
Laundry-Machine Mechanics	25	31	6	2	8
Mechanics, Maintenance (Exc. Millwrights)	267	326	59	25	84
Pinsetter Mechanics, Automatic	52	65	13	5	18
Refrigeration/Air Conditioning Mechanics	87	108	21	3	29
TV, Radio &/or Tape Recorder Srvcrs. & Repairers	93	115	22	6	28
Data Processing Machine Repairers	37	45	8	2	10
Gas & Electric Appliance Repairers	90	112	22	11	33

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
All Other Mechanics & Repairers	307	379	72	30	102
Developers &/or Production Printers	200	244	44	23	67
Negative Cutters &/or Spotters	28	34	6	4	10
Multiple-Photographic-Printer Operators	76	93	17	11	28
Print Developers, Machine	34	42	8	5	13
Photo Checkers & Assemblers	47	58	11	7	18
Copy Camera Operators	50	61	11	7	18
All Other Darkroom Workers	9	11	2	2	4
Markers, Classifiers, Wet Wash Assemblers	119	148	29	31	60
Spotters, Dry Cleaning	31	38	7	6	13
Washers, Machine &/or Starchers	226	278	52	59	111
Tumbler Operators	24	30	6	6	12
Dry-Cleaning-Machine Operators	94	117	23	17	40
Dry-Cleaners, Hand	11	14	3	2	5
Laundry Operators, Small Establishment	226	283	57	59	116
Pressers, Hand	60	74	14	16	30
Pressers, Machine (Exc. Laundry Pressers, Machine)	186	231	45	34	79
Pressers, Machine, Laundry	275	342	67	72	139
Rug Cleaners, Hand	60	74	14	11	25
Rug Cleaners, Machine	53	66	13	10	23
Shoe Repairers	36	45	9	11	20
Truck Drivers	579	711	132	44	176
Blueprinting Machine Operators	107	131	24	15	39
Bus Drivers	44	55	11	6	17
Carpenters (Exc. Cabinetmakers)	125	153	28	16	44
Cleaners, Vehicle	864	1,072	208	48	256
Compositors &/or Typesetters	27	33	6	4	10
Delivery & Route Workers	780	958	178	56	234
Electricians	76	93	17	8	25
Exterminators	397	485	88	47	135
Filters, Grinders & Buffers (Exc. Lens)	16	20	4	1	5
Supervisors, Nonworking	366	452	86	42	128
Folders, Laundry	51	63	12	11	23
Industrial Truck Operators	44	54	10	3	13
Inspectors	70	86	16	10	26
Instrument Repairers	6	7	1	1	2
Jewelers &/or Silversmiths	17	21	4	3	7
Machinists	68	84	16	7	23
Maintenance Repairers, General Utility	1,145	1,423	278	109	387
Trades Helpers	189	234	45	22	67
Menders (Exc. Seamstresses & Alteration Tailors)	20	25	5	3	8
Order Fillers	25	31	6	2	8
Photo Retouchers/Colorists & Airbrush Artists	109	133	24	20	44
Painters, Automotive	171	212	41	20	61
Painters, Maintenance (Exc. Production Painters)	78	96	18	10	28
Parking Lot Attendants	118	147	29	11	40
Plumbers &/or Pipefitters	58	71	13	6	19
Press Operators &/or Plate Printers	19	23	4	2	6
Production Packagers, Hand or Machine	79	98	19	13	32
Motion Picture Projectionists	98	109	21	21	42
Dental Laboratory Technicians	314	380	66	43	109
Sewing Machine Opers., Reg. Equip.-Garment	10	12	2	1	3
Sewing Machine Opers., Reg. Equip.-Nongarment	20	25	5	3	8
Sewing Machine Opers., Spec. &/or Auto. Equip. Nongarment	8	10	2	1	3
Alteration Tailors (Exc. Menders & Custom Sewers)	24	30	6	4	10

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Animal Caretakers	138	171	33	29	62
Termite Treaters	25	31	6	3	9
Tire Fabricators &/or Repairers	124	154	30	15	45
Trailer-Rental Attendants	35	43	8	7	15
Welders & Flamecutters	306	379	73	36	109
Pin Chasers	75	93	18	11	29
Fuel Pump Attendants &/or Lubricators	105	130	25	12	37
Opticians, Dispensing &/or Optical Mechanics	51	62	11	9	20
Furniture Upholsterers	125	155	30	20	50
Surveyor Helpers	213	264	51	25	76
Baker Helpers	13	16	3	2	5
Automobile Seat Cover & Top Installers	97	120	23	6	29
Glass Installers	78	97	19	8	27
Rental Car Deliverers	106	132	26	13	39
Gardeners & Groundskeepers	1,417	1,759	342	285	627
Chauffeurs	102	126	24	15	39
Bus Drivers, School	37	46	9	5	14
All Other Skilled Craft Workers	495	611	116	49	165
All Other Operatives & Semiskilled Workers	740	910	170	85	255
All Other Laborers & Unskilled Workers	2,434	2,992	558	284	842
TOTAL CLERICAL WORKERS	25,869	31,821	5,952	5,719	11,671
Bookkeeping &/or Billing Machine Operators	273	335	62	53	115
Computer Operators	583	715	132	66	198
Keypunch Operators	739	903	164	166	330
Peripheral EDP Equipment Operators	56	68	12	14	26
Inserting &/or Labeling Machine Operators	27	33	6	8	14
Duplicating Machine Operators	43	53	10	11	21
All Other Office Machine Operators	163	199	36	47	83
Stenographers	272	334	62	59	121
Accounting Clerks	1,209	1,491	282	246	528
Bookkeepers, Hand	1,515	1,866	351	309	660
Call-Out Operators	20	24	4	4	8
Car Rental Clerks	343	426	83	96	179
Cashiers (Inc. Cashier-Checkers)	1,066	1,324	258	227	485
Collectors	288	352	64	44	108
Counter Clerks	307	381	74	67	141
Desk Clerks, Bowling Floor	127	158	31	19	50
Credit Reporters	113	138	25	25	50
Media Clerks, Estimators &/or Billers	10	12	2	0	2
File Clerks	558	682	124	159	283
General Clerks, Office	2,697	3,314	617	602	1,219
Desk Clerks	777	976	199	170	369
In-File Operators	51	62	11	11	22
Library Assistants (Exc. Techs.)	8	10	2	2	4
Mail Clerks	145	177	32	26	58
Insurance Clerks, Medical	343	415	72	76	148
Order Clerks	93	114	21	20	41
Payroll &/or Timekeeping Clerks	353	436	83	66	149
Personnel Clerks	149	184	35	43	78
Receptionists	2,109	2,569	460	569	1,029
Secretaries	4,888	6,035	1,147	1,161	2,308
Statistical Clerks	61	75	14	14	28
Survey Workers	938	1,145	207	153	360
Switchboard Operators	745	914	169	207	376
Switchboard Operator-Receptionists	604	743	139	164	303
Messengers	110	137	27	14	41
Travel Clerks	29	36	7	7	14
Typists (Inc. Clerk-Typists)	1,415	1,739	324	379	703
Clerical Supervisors, Office-Plant	457	561	104	58	162

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Teacher's Aides &/or Ed. Assistants	232	288	56	42	98
All Other Office Clerical Workers	855	1,048	193	189	382
Production Clerks &/or Coordinators	233	285	52	26	78
Shipping Packers	53	66	13	6	19
Shipping &/or Receiving Clerks	154	190	36	14	50
Stock Clerks	513	630	117	60	177
Dispatchers	113	139	26	13	39
All Other Plant Clerical Workers	32	39	7	7	14
SALES WORKERS	3,529	4,349	820	479	1,299
Sales Reps., Agents &/or Associates	1,884	2,322	438	250	688
Contribution Solicitors	49	61	12	7	19
All Other Sales Reps., Agents &/or Associates	132	164	32	22	54
Sales Clerks (Exc. Cashiers)	1,360	1,675	315	180	495
Demonstrators	61	74	13	11	24
All Other Sales Workers	43	53	10	9	19
TOTAL ALL OCCUPATIONS	114,309	140,857	26,548	19,793	46,341

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Aeronautical Engineers
Chemical Engineers
Industrial Engineers
Metal Engineers
Mining Engineers
Safety Engineers
Traffic Engineers

All Other Natural & Math Scientists
Actuaries
Agricultural Scientists
Biological Scientists

All Other Social Scientists
Economists

All Other Professional Workers
Appraisers (Exc. Art. & Real Estate Appraisers)
Archivists
Choirmasters
Coaches, Professional Athletes (Exc. Head Coaches)
Comedians
Film Editors
Pharmacists
Director of Religious Activities
Umpires
Veterinarians
Athletic Trainers
Audiometrists

SERVICE WORKERS

All Other Service Workers
Cremators
Escorts &/or Chaperons
Guides, Sightseeing or Establishment

TECHNICAL WORKERS

All Other Engineering Technicians
Traffic Technicians
Industrial Engineering Technicians

All Other Medical & Dental Technicians
Biochemistry Technologists
Electroencephalograph Technicians

All Other Technicians
Mathematical Technicians
Museum Technicians &/or Restorers
Technical Assistants, Library
Taxidermists
Pharmacy Helpers

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Bicycle Repairers
Camera Repairers
Electrical Instrument Repairers
Locksmiths
Office Machine &/or Cash Register Servicers
Coin/Vending-Machine Servicers & Repairers

All Other Darkroom Workers
Photographer Helpers

All Other Skilled Craft Workers
Spotters, Washable Materials
Fur Cleaners
Automobile Repairs-Service Estimators
Merchandise Displays & Window Trimmers
Musical Instrument Repairers
Custom Sewers (Exc. Alteration Tailors & Menders)
Sign Erectors
Stationary Engineers
Watchmakers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MARICOPA COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Rackers, Poolroom
Furniture Finishers

All Other Operatives & Semiskilled Workers
Billposters
Fumigators
Sewing Machine Opers., Special Equip.-Garment
Stationary Boiler Firers
Septic Tank Servicers &/or Sewer Pipe Cleaners
Testers
Picture Framers
Bindery Workers, Assembly
Ambulance Drivers &/or Attendants

All Other Laborers & Unskilled Workers
Termite Treater Helpers

CLERICAL WORKERS

All Other Office Machine Operators
Addressing-Machine Operators

All Other Office Clerical Workers
Actuarial Clerks
Film Bookers
Foreign Credit Reporters
Travel Counselors, Auto Club
Eligibility Workers, Welfare
Proofreaders, Clerical

SALES WORKERS

All Other Sales Workers
Vendors

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

NAVAJO COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	279	315	36	40	76
TOTAL PROFESSIONAL WORKERS	735	831	96	109	205
All Engineers	21	24	3	2	5
Natural & Mathematical Scientists	14	16	2	1	3
All Social Scientists	14	16	2	1	3
Teachers, Elementary &/or Preschool	32	36	4	6	10
All Other Teachers	148	167	19	21	40
Accountants & Auditors	28	32	4	4	8
Caseworkers	80	90	10	14	24
Dentists	6	7	1	1	2
Dietitians &/or Nutritionists	5	6	1	1	2
Law Clerks	5	6	1	1	2
Lawyers	12	14	2	1	3
Librarians, Professional	3	3	0	1	1
Nurses, Professional (Exc. Practical Nurses)	31	36	5	6	11
Paralegal Personnel	4	5	1	0	1
Personnel & Labor Relations Specialists	6	7	1	1	2
Physicians &/or Surgeons	21	24	3	3	6
Community Organization Workers	34	38	4	6	10
All Therapists	8	9	1	1	2
All Other Professional Workers	263	295	32	38	70
TOTAL TECHNICAL WORKERS	117	133	16	19	35
Electrical & Electronic Technicians	12	14	2	1	3
All Other Engineering Technicians	18	20	2	1	3
All Science Technicians	11	12	1	1	2
Radiologic Technicians	6	7	1	1	2
Dental Hygienists	8	9	1	2	3
All Other Medical & Dental Technicians	61	70	9	13	22
All Technicians	1	1	0	0	0
TOTAL SERVICE WORKERS	1,204	1,359	155	229	384
Maids	186	208	22	45	67
All Other Janitors, Porters & Cleaners	79	89	10	16	26
All Guards & Doorkeepers	79	90	11	5	16
Bartenders	18	20	2	3	5
Kitchen Helpers	59	66	7	11	18
Waiters or Waitresses	115	129	14	26	40
Cooks, Restaurant (Exc. Supervisory Chefs)	57	64	7	9	16
Cooks, Institution	87	98	11	14	25
All Other Food Service Workers	100	112	12	14	26
Cosmetologists &/or Women's Hairstylists	36	41	5	10	15
Supervisors, Nonworking-Service	27	31	4	3	7
Housekeepers	5	6	1	1	2
Nurse's Aides &/or Orderlies	19	22	3	4	7
Child-Care Workers	39	44	5	11	16
Social Service Aides	127	144	17	23	40
Medical Assistants	14	16	2	3	5
All Other Service Workers	157	179	22	31	53
TOTAL MAINTENANCE & PRODUCTION WORKERS	1,315	1,484	169	147	316
Mechanics, Automotive	34	38	4	3	7
Body Repairers, Automotive	12	14	2	1	3
All Other Mechanics & Repairers	65	73	8	5	13
Laundry Operators, Small Establishment	9	10	1	2	3
Carpenters (Exc. Cabinetmakers)	16	18	2	2	4
Electricians	13	15	2	1	3
Supervisors, Nonworking	43	49	6	5	11
Maintenance Repairers, General Utility	159	179	20	15	35
Painters, Maintenance (Exc. Production Painters)	9	10	1	1	2

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

NAVAJO COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Dental-Laboratory Technicians	9	10	1	1	2
Gardeners & Groundskeepers	23	26	3	5	8
Bus Drivers, School	34	38	4	4	8
All Other Skilled Craft Workers	136	154	18	17	35
All Other Operatives & Semiskilled Workers	425	479	54	48	102
All Other Laborers & Unskilled Workers	328	371	43	37	80
TOTAL CLERICAL WORKERS	893	1,009	116	190	306
All Office Machine Operators	7	8	1	1	2
Stenographers	7	8	1	1	2
Accounting Clerks	38	43	5	8	13
Bookkeepers, Hand	18	20	2	4	6
General Clerks, Office	61	69	8	13	21
Desk Clerks	46	51	5	10	15
Insurance Clerks, Medical	7	8	1	2	3
Payroll &/or Timekeeping Clerks	7	8	1	1	2
Personnel Clerks	6	7	1	2	3
Receptionists	35	40	5	9	14
Secretaries	136	154	18	32	50
Typists (Inc. Clerk-Typists)	61	69	8	16	24
Clerical Supervisors, Office or Plant	23	26	3	3	6
All Other Office Clerical Workers	421	475	54	86	140
All Plant Clerical Workers	20	23	3	2	5
TOTAL SALES WORKERS	59	67	8	8	16
All Sales Reps., Agents &/or Associates	7	8	1	1	2
All Other Sales Workers	52	59	7	7	14
TOTAL ALL OCCUPATIONS	4,602	5,198	596	742	1,338

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Engineers
 Civil Engineers
 Electrical & Electronic Engineers
 All Natural & Mathematical Scientists
 Statisticians
 All Social Scientists
 Psychologists
 All Other Teachers
 Teachers, Vocational Education or Training
 Teachers, Adult Education
 Vocational & Educational Counselors
 All Other Professional Workers
 Systems Analysts, EDP
 Purchasing Agents &/or Buyers
 Chiropractors
 Clergy
 Writers &/or Editors
 Embalmers
 Musicians, Instrumental
 Optometrists (Exc. Opticians)
 Public-Relations Practitioners
 Directors of Religious Activities

PROFESSIONAL WORKERS (CONTD.)

Sports Instructors
 Veterinarians
 Tax Preparers
 Group Recreation Workers

All Therapists
 Occupational Therapists

TECHNICAL WORKERS

All Other Engineering Technicians
 Computer Programmers
 Drafters
 Surveyors (Exc. Surveyor Helpers)
 All Other Medical & Dental Technicians
 Dental Assistants
 Licensed Practical Nurses
 Physician's Assistants
 Medical & Dental Technicians & Technologists
 Medical Laboratory Technologists
 Medical Laboratory Technicians

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

NAVAJO COUNTY (CONTD.)

SERVICE WORKERS

- All Other Janitors, Porters & Cleaners
House Cleaners
- All Other Food Service Workers
Dining Rm./Cafeteria Attends. & Bartdr. Helpers
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop
Cooks, Short Order &/or Specialty Fast Foods
Pantry, Sandwich &/or Coffee Makers
- All Other Service Workers
Child-Care Attendants
Barbers
Funeral Attendants
Recreation Facility Attendants
Game & Ride Operators & Concession Workers
Ushers, Lobby Attendants, Ticket Takers
Mortuary Beauticians

MAINTENANCE & PRODUCTION WORKERS

- All Other Mechanics & Repairers
Diesel Mechs. (Exc. Auto & Eng. Equip. Mech.)
Laundry-Machine Mechanics
Mechanics, Maintenance (Exc. Millwrights)
Pinsetter Mechanics, Automatic
TV, Radio &/or Tape Recorder Servicers & Repairers
- All Other Skilled Craft Workers
Spotters, Dry Cleaning
Spotters, Washable Materials
Dry-Cleaning-Machine Operators
Dry-Cleaners, Hand
Pressers, Machine, Laundry
Bus Drivers
Compositors &/or Typesetters
Painters, Automotive
Plumbers &/or Pipefitters
Press Operators &/or Plate Printers
Motion Picture Projectionists
Stationary Engineers
- All Other Operatives & Semiskilled Workers
Markers, Classifiers, Wet Wash Assemblers
Washers, Machine &/or Starchers
Pressers, Machine (Exc. Laundry Pressers, Machine)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

- Truck Drivers
Delivery & Route Workers
Exterminators
Inspectors
Stationary Boiler Firers
Fuel Pump Attendants &/or Lubricators
Surveyor Helpers
Chauffeurs
- All Other Laborers & Unskilled Workers
Folders, Laundry
Trades Helpers
Order Fillers
Production Packagers, Hand or Machine
Pin Chasers

CLERICAL WORKERS

- All Office Machine Operators
Bookkeeping &/or Billing Machine Operators
Computer Operators
- All Other Office Clerical Workers
Cashiers (Inc. Cashier-Checkers)
Counter Clerks
Desk Clerks, Bowling Floor
Media Clerks, Estimators, &/or Billers
File Clerks
Library Assistants (Exc. Techs.)
Mail Clerks
Order Clerks
Statistical Clerks
Switchboard Operators
Switchboard Operator-Receptionists
Teacher's Aides &/or Educational Assistants
- All Plant Clerical Workers
Stock Clerks, Stockroom, Warehouse or Storage Yard
Dispatchers, Vehicle, Service or Work

SALES WORKERS

- All Other Sales Workers
Sales Clerks (Exc. Cashiers)

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MOHAVE COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	214	252	38	31	69
TOTAL PROFESSIONAL WORKERS	230	272	42	35	77
All Engineers	1	1	0	0	0
All Social Scientists	2	2	0	0	0
All Teachers	11	13	2	2	4
Accountants & Auditors	31	36	5	5	10
Chiropractors	5	6	1	2	3
Dentists	6	7	1	1	2
Lawyers	11	13	2	1	3
Nurses, Professional (Exc. Practical Nurses)	34	41	7	7	14
Paralegal Personnel	4	5	1	0	1
Physicians &/or Surgeons	34	41	7	5	12
All Other Professional Workers	91	107	16	12	28
TOTAL TECHNICAL WORKERS	125	150	25	29	54
All Engineering Technicians	13	15	2	1	3
Dental Assistants	66	80	14	19	33
Licensed Practical Nurses	20	24	4	5	9
Radiologic Technicians	3	4	1	0	1
Dental Hygienists	9	11	2	2	4
Medical Laboratory Technicians	4	5	1	1	2
All Other Medical & Dental Technicians	5	5	0	0	0
All Other Technicians	5	6	1	1	2
TOTAL SERVICE WORKERS	918	1,067	149	183	332
Maids	293	339	46	72	118
House Cleaners	12	14	2	3	5
All Other Janitors, Porters & Cleaners	46	54	8	8	16
Guards & Doorkeepers	42	49	7	2	9
Bartenders	51	59	8	8	16
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	45	52	7	3	10
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop	7	8	1	2	3
Kitchen Helpers	65	76	11	12	23
Waiters or Waitresses	121	140	19	27	46
Cooks, Restaurant (Exc. Supervisory Chefs)	41	47	6	6	12
Cooks, Institution	13	15	2	2	4
All Other Food Service Workers	22	25	3	4	7
Cosmetologists &/or Women's Hairstylists	48	57	9	13	22
Supervisors, Nonworking-Service	8	9	1	1	2
Housekeepers	17	20	3	3	6
Medical Assistants	22	27	5	5	10
All Other Service Workers	65	76	11	12	23
TOTAL MAINTENANCE & PRODUCTION WORKERS	358	417	59	45	104
Mechanics, Automotive	20	24	4	2	6
Diesel Mechs. (Exc. Auto & Eng. Equip. Mechs.)	14	17	3	1	4
Mechanics, Maintenance (Exc. Millwrights)	16	19	3	2	5
All Other Mechanics & Repairers	32	37	5	2	7
Laundry Operators, Small Establishment	30	35	5	8	13
Delivery & Route Workers	7	8	1	0	1
Supervisors, Nonworking	6	7	1	1	2
Maintenance Repairers, General Utility	70	81	11	7	18
Painters, Automotive	5	6	1	1	2
Opticians, Dispensing &/or Optical Mechanics	9	11	2	2	4
Gardeners & Groundskeepers	42	49	7	8	15
All Other Skilled Craft Workers	23	25	2	2	4
All Other Operatives & Semiskilled Workers	36	42	6	4	10
All Other Laborers & Unskilled Workers	48	56	8	5	13

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MOHAVE COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL CLERICAL WORKERS	464	547	83	104	187
All Office Machine Operators	4	5	1	0	1
Accounting Clerks	13	15	2	3	5
Bookkeepers, Hand	29	34	5	6	11
Cashiers, (Inc. Cashier-Checkers)	41	48	7	9	16
Counter Clerks	8	9	1	2	3
File Clerks	7	8	1	2	3
General Clerks, Office	32	38	6	7	13
Desk Clerks	108	125	17	23	40
Insurance Clerks, Medical	8	10	2	2	4
Payroll &/or Timekeeping Clerks	7	8	1	1	2
Receptionists	48	58	10	13	23
Secretaries	81	96	15	19	34
Switchboard Operator-Receptionists	10	12	2	3	5
All Other Office Clerical Workers	54	64	10	13	23
Stock Clerks, Stockroom, Warehouse or Storage Yard	10	12	2	1	3
All Plant Clerical Workers	4	5	1	0	1
TOTAL SALES WORKERS	43	51	8	6	14
Sales Reps., Agents &/or Associates	14	17	3	2	5
Sales Clerks (Exc. Cashiers)	29	34	5	4	9
TOTAL ALL OCCUPATIONS	2,352	2,756	404	433	837

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Teachers
 Teachers, Elementary &/or Preschool

All Other Professional Workers
 Purchasing Agents &/or Buyers
 Architects (Exc. Landscape Architects)
 Case Workers
 Embalmers
 Law Clerks
 Optometrists (Exc. Opticians)
 Personnel & Labor Relations Specialists
 Sports Instructors
 Tax Preparers
 Group Recreation Workers
 Manual-Arts, Music &/or Rec. Therapists

TECHNICAL WORKERS

All Engineering Technicians
 Drafters
 Electrical & Electronic Technicians
 Surveyors (Exc. Surveyor Helpers)

SERVICE WORKERS

All Other Janitors, Porters & Cleaners
 Janitors, Porters & Cleaners

All Other Food Service Workers
 Counter Attends., Lunch, Coffee Shop or Cafeteria
 Cooks, Short Order &/or Specialty Fast Foods
 Food Prep. & Service Wrks., Fast Food Restaurants
 Pantry, Sandwich &/or Coffee Makers

SERVICE WORKERS (CONTD.)

All Other Service Workers
 Child Care Attendants
 Bellhops, Porters, Doorkpr. & Rm. Srvc. Attdts.
 Funeral Attendants
 Nurse's Aides &/or Orderlies
 Recreation Facility Attendants
 Ushers, Lobby Attendants & Ticket Takers
 Instructors, Reducing
 Child-Care Workers
 Lifeguards

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
 Body Repairers, Automotive
 Electric-Motor Repairers
 Electric-Tool Repairers
 Pinsetter Mechanics, Automatic
 Gas & Electric Appliance Repairers

All Other Skilled Craft Workers
 Spotters, Dry Cleaning
 Dry-Cleaning-Machine Operators
 Pressers, Machine, Laundry
 Bus Drivers
 Carpenters (Exc. Cabinetmakers)
 Electricians
 Machinists
 Plumbers &/or Pipefitters
 Motion Picture Projectionists
 Dental-Laboratory Technicians
 Termite Treaters
 Bus Drivers, School

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

MOHAVE COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Markers, Classifiers, Wet Wash Assemblers
Washers, Machine &/or Starchers
Pressers, Machine (Exc. Laundry Pressers, Machine)
Exterminators
Welders & Flamecutters
Surveyor Helpers
Septic Tank Servicers &/or Sewer Pipe Cleaners

All Other Laborers & Unskilled Workers
Cleaners, Vehicle
Folders, Laundry
Trades Helpers
Order Fillers
Animal Caretakers

CLERICAL WORKERS

All Other Office Clerical Workers
Stenographers
Car Rental Clerks
Desk Clerks, Bowling Floor
Mail Clerks
Personnel Clerks
Switchboard Operators
Typists (Inc. Clerk-Typists)
Clerical Supervisors, Office or Plant
Teacher's Aides &/or Educational Assistants

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PIMA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	3,355	4,045	690	494	1,184
TOTAL PROFESSIONAL WORKERS	6,329	7,549	1,220	922	2,142
Chemical Engineers	31	38	7	2	9
Civil Engineers	232	279	47	32	79
Electrical & Electronic Engineers	170	208	38	10	48
Mechanical Engineers	113	137	24	7	31
Metal Engineers	22	27	5	1	6
All Other Engineers	115	139	24	10	34
Chemists	39	48	9	5	14
Geologists & Geophysicists	24	29	5	2	7
All Other Physical Scientists	47	57	10	3	13
All Other Natural & Mathematical Scientists	12	15	3	2	5
Market Research Analysts	41	51	10	5	15
Psychologists	17	20	3	2	5
Systems Analysts, Business	49	61	12	2	14
Systems Analysts, Scientific & Technical	54	67	13	2	15
Teachers, Voc. Ed. or Training	29	35	6	6	12
Teachers, Adult Education	94	113	19	11	30
Vocational & Educational Counselors	144	173	29	21	50
Teachers, Elementary &/or Preschool	363	436	73	70	143
All Other Teachers	24	29	5	6	11
Photographers	40	49	9	4	13
Purchasing Agents &/or Buyers	43	52	9	6	15
Accountants & Auditors	611	735	124	93	217
Actors & Actresses	71	85	14	8	22
Landscape Architects	11	13	2	1	3
Architects (Exc. Landscape Architects)	87	105	18	12	30
Media Buyers	12	15	3	2	5
Caseworkers	450	538	88	83	171
Chiropractors	9	10	1	3	4
Commercial Artists	26	32	6	5	11
Dance Instructors	61	73	12	14	26
Dentists	129	147	18	13	31
Dietitians &/or Nutritionists	13	15	2	3	5
Writers &/or Editors	46	57	11	8	19
Embalmers	11	13	2	1	3
Employment Interviewers	45	56	11	6	17
Law Clerks	81	97	16	9	25
Lawyers	325	391	66	37	103
Librarians, Professional	9	11	2	2	4
Media Analysts	9	11	2	1	3
Curators, Museum	11	13	2	1	3
Music Directors	4	5	1	1	2
Musicians, Instrumental	130	156	26	19	45
Nurses, Professional (Exc. Practical Nurses)	646	755	109	127	236
Optometrists (Exc. Opticians)	41	47	6	6	12
Paralegal Personnel	69	83	14	8	22
Personnel & Labor Relations Specialists	57	69	12	7	19
Physical Therapists	54	61	7	9	16
Physicians &/or Surgeons	646	735	89	97	186
Public-Relations Practitioners	81	99	18	13	31
Sports Instructors	228	276	48	25	74
Designers (Exc. Design Engineers)	38	47	9	3	12
Community Organization Workers	83	100	17	15	32
Tax Preparers	76	91	15	12	27
Group Recreation Workers	152	183	31	22	53
Manual-Arts, Music &/or Rec. Therapists	19	22	3	3	6
All Other Therapists	12	13	1	1	2
All Other Professional Workers	273	327	54	42	96

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PIMA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL TECHNICAL WORKERS	2,507	2,963	456	408	864
Computer Programmers	4	5	1	0	1
Computer Programmers, Business	62	77	15	3	18
Computer Programmers, Scientific & Tech.	28	34	6	1	7
Drafters	444	536	92	37	129
Electrical & Electronic Technicians	113	139	26	7	33
Surveyors (Exc. Surveyor Helpers)	149	179	30	10	40
Civil Engineering Technicians	65	78	13	9	22
All Other Engineering Technicians	194	238	44	19	63
Science Technicians	20	25	5	2	7
Physical Science Technicians	27	32	5	2	7
All Other Science Technicians (Exc. Med. & Dental)	20	24	4	2	6
Dental Assistants	281	319	38	78	116
Licensed Practical Nurses	374	441	67	85	152
Physician's Assistants	37	42	5	9	14
Radiologic Technicians	70	80	10	11	21
Medical-Record Librarians	62	71	9	16	25
Dental Hygienists	145	165	20	33	53
Medical Laboratory Technologists	78	89	11	14	25
Biochemistry Technologists	8	9	1	1	2
Microbiology Technologists	11	13	2	2	4
Medical Laboratory Technicians	77	88	11	18	29
Physical Therapy Assistants	34	39	5	3	8
Radiologic &/or Nuclear Medical Techs.	37	42	5	6	11
All Other Medical & Dental Technicians	85	97	12	31	43
All Other Technicians	82	101	19	9	28
TOTAL SERVICE WORKERS	9,400	11,464	2,064	1,853	3,917
Janitors, Porters & Cleaners	94	113	19	18	37
Maids	794	1,002	208	200	408
House Cleaners	213	269	56	47	103
All Other Janitors, Porters & Cleaners	899	1,111	212	169	381
Guards & Doorkeepers	612	761	149	37	186
Food Service Workers (Exc. Cashiers)	78	96	18	15	33
Bartenders	285	351	66	43	109
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	272	333	61	16	77
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop	35	45	10	8	18
Kitchen Helpers	423	516	93	79	172
Waiters or Waitresses	770	963	193	177	370
Counter Attends., Lunch, Coffee Shop or Cafeteria	43	53	10	10	20
Cooks, Short Order &/or Specialty Fast Foods	45	55	10	7	17
Cooks, Restaurant (Exc. Supervisory Chefs)	229	287	58	37	95
Food Prep. & Service Wrks., Fast Food Restaurants	106	130	22	20	42
Pantry, Sandwich &/or Coffee Makers	55	70	15	10	25
Cooks, Institution	150	179	29	24	53
All Other Food Service Workers	9	11	2	1	3
Child Care Attendants	131	157	26	36	62
Barbers	77	93	16	13	29
Bellhops, Porters, Doorkeepers or Rm. Srvc. Attnds.	84	108	24	6	30
Cosmetologists &/or Women's Hairstylists	822	988	166	223	389
Detectives	11	14	3	1	4
Supervisors, Nonworking-Service	110	135	25	13	38
Funeral Attendants	37	44	7	2	9
Housekeepers	133	161	28	28	56
Manicurists	49	59	10	13	23

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PIMA COUNTY (CONTD.)

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
Nurse's Aides &/or Orderlies	750	859	109	167	276
Protective-Signal Operators	23	29	6	5	11
Recreation Facility Attendants	275	332	57	42	99
Ushers, Lobby Attendants & Ticket Takers	140	168	28	21	49
Shampooers	9	11	2	2	4
Instructors, Reducing	46	55	9	9	18
Child-Care Workers	425	511	86	117	203
Lifeguards	55	67	12	8	20
Checkroom & Locker-Room Attendants	64	77	13	13	26
Social Service Aides	319	381	62	59	121
Medical Assistants	311	356	45	72	117
All Other Service Workers	415	514	99	85	184
TOTAL MAINTENANCE & PRODUCTION WORKERS	5,084	6,152	1,068	634	1,702
Protective-Signal Installers &/or Repairers	43	54	11	2	13
Mechanics, Automotive	438	527	89	37	126
Body Repairers, Automotive	98	118	20	8	28
Diesel Mechs. (Exc. Auto & Eng. Equip. Mechs.)	34	41	7	3	10
Electric-Motor Repairers	41	49	8	4	12
Electric-Tool Repairers	8	10	2	1	3
Laundry-Machine Mechanics	12	14	2	1	3
Locksmiths	32	38	6	3	9
Mechanics, Maintenance (Exc. Millwrights)	78	96	18	7	25
Pinsetter Mechanics, Automatic	19	23	4	2	6
TV, Radio &/or Tape Recorder Srvcs. & Repairers	22	26	4	2	6
Gas & Electric Appliance Repairers	26	31	5	3	8
All Other Mechanics & Repairers	60	73	13	5	18
Developers &/or Projection Printers	19	24	5	2	7
Negative Cutters &/or Spotters	9	11	2	1	3
All Other Darkroom Workers	51	63	12	7	19
Markers, Classifiers, Wet Wash Assemblers	44	53	9	11	20
Spotters, Dry Cleaning	16	19	3	3	6
Spotters, Washable Materials	7	8	1	2	3
Washers, Machine &/or Starchers	78	91	13	20	33
Tumbler Operators	4	5	1	1	2
Dry-Cleaning-Machine Operators	26	31	5	5	10
Laundry Operators, Small Establishment	95	120	25	25	50
Pressers, Hand	18	22	4	5	9
Pressers, Machine (Exc. Laundry Pressers, Machine)	76	91	15	14	29
Pressers, Machine, Laundry	57	69	12	15	27
Rug Cleaners, Hand	32	38	6	6	12
Rug Cleaners, Machine	17	20	3	3	6
Shoe Repairers	18	22	4	6	10
Truck Drivers	62	75	13	5	18
Bus Drivers	28	34	6	4	10
Carpenters (Exc. Cabinetmakers)	32	38	6	4	10
Cleaners, Vehicle	289	347	58	16	74
Compositors &/or Typesetters	5	6	1	1	2
Delivery & Route Workers	216	261	45	15	60
Electricians	17	21	4	2	6
Exterminators	146	182	36	17	53
Supervisors, Nonworking	163	197	34	19	53
Folders, Laundry	35	42	7	8	15
Inspectors	49	50	11	7	18
Instrument Repairers	93	112	19	9	28
Machinists	48	53	10	5	15
Maintenance Repairers, General Utility	336	411	75	32	107
Trades Helpers	64	77	13	7	20

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PIMA COUNTY (CONTD.)

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
Menders (Exc. Seamstresses & Alteration Tailors)	20	24	4	3	7
Painters, Automotive	62	75	13	7	20
Painters, Maintenance (Exc. Production Painters)	4	5	1	1	2
Parking Lot Attendants	20	24	4	2	6
Plumbers &/or Pipefitters	3	4	1	0	1
Press Operators &/or Plate Printers	15	19	4	1	5
Production Packagers, Hand or Machine	38	45	7	6	13
Motion Picture Projectionists	41	49	8	10	18
Dental Laboratory Technicians	106	121	15	14	29
Alteration Tailors (Exc. Menders & Custom Sewers)	10	12	2	2	4
Termite Treators	28	35	7	3	10
Termite Treater Helpers	12	15	3	1	4
Tire Fabricators &/or Repairers	27	32	5	3	8
Welders & Flamecutters	45	54	9	5	14
Pin Chasers	14	17	3	2	5
Rackers, Poolroom	13	16	3	2	5
Fuel Pump Attendants &/or Lubricators	23	28	5	3	8
Opticians, Dispensing &/or Optical Mechanics	77	88	11	13	24
Furniture Upholsterers	67	81	14	11	25
Surveyor Helpers	152	183	31	18	49
Auto Seat Cover & Top Installers	39	47	8	3	11
Glass Installers	62	75	13	6	19
Rental Car Deliverers	27	32	5	3	8
Gardeners & Groundskeepers	339	412	73	68	141
Chauffeurs	28	34	6	4	10
Bindery Workers, Assembly	5	6	1	0	1
All Other Skilled Craft Workers	231	284	53	24	77
All Other Operatives & Semiskilled Workers	183	224	41	21	62
All Other Laborers & Unskilled Workers	332	403	71	43	114
TOTAL CLERICAL WORKERS	6,467	7,771	1,304	1,443	2,747
Bookkeeping &/or Billing Machine Operators	52	62	10	10	20
Computer Operators	90	110	20	10	30
Key punch Operators	109	131	22	24	46
Duplicating Machine Operators	40	50	10	10	20
All Other Office Machine Operators	37	45	8	10	18
Stenographers	54	65	11	12	23
Accounting Clerks	313	377	64	63	127
Bookkeepers, Hand	535	643	108	108	216
Car Rental Clerks	73	88	15	20	35
Cashiers (Inc. Cashier-Checkers)	312	378	66	66	132
Collectors	41	51	10	6	16
Counter Clerks	167	201	34	36	70
Desk Clerks, Bowling Floor	29	35	6	4	10
File Clerks	105	124	19	30	49
General Clerks, Office	661	795	134	147	281
Desk Clerks	176	227	51	39	90
Mail Clerks	15	18	3	3	6
Insurance Clerks, Medical	103	117	14	23	37
Order Clerks	18	22	4	4	8
Payroll &/or Timekeeping Clerks	85	103	18	16	34
Personnel Clerks	19	23	4	5	9
Receptionists	708	823	115	189	304
Secretaries	1,327	1,592	265	313	578
Statistical Clerks	18	21	3	4	7
Survey Workers	48	60	12	8	20
Switchboard Operators	159	198	39	44	83
Switchboard Operator-Receptionists	182	218	36	49	85

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PIMA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Messengers	21	25	4	3	7
Travel Clerks	5	6	1	1	2
Typists (Inc. Clerk-Typists)	301	364	63	80	143
Clerical Supervisors, Office or Plant	88	106	18	11	29
Teacher's Aides &/or Ed. Assistants	170	204	34	31	65
All Other Office Clerical Workers	175	210	35	37	72
Production Clerks &/or Coordinators	37	45	8	4	12
Shipping Packers	31	38	7	4	11
Shipping &/or Receiving Clerks	33	40	7	3	10
Stock Clerks, Stockroom, Warehouse or Storage Yard	104	125	21	12	33
Dispatchers	16	19	3	2	5
All Other Plant Clerical Workers	10	12	2	2	4
TOTAL SALES WORKERS	707	865	158	98	256
Sales Reps., Agents &/or Associates	465	570	105	64	169
Contribution Solicitors	16	19	3	2	5
Sales Clerks (Exc. Cashiers)	177	215	38	23	61
Demonstrators	49	61	12	9	21
TOTAL ALL OCCUPATIONS	33,849	40,809	6,960	5,852	12,812

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Aeronautical Engineers
Industrial Engineers
Mining Engineers
Safety Engineers

All Other Physical Scientists
Physicians

All Other Natural & Mathematical Scientists
Statisticians

All Other Therapists
Occupational Therapists
Speech Pathologists &/or Audiologists
Corrective Therapists
Respiratory Therapists

All Other Professional Workers
Economists
Urban & Regional Planners
Systems Analysts, EDP
Archivists
Announcers
Athletes
Budget Analysts
Directors, Camp
Clergy
Cost Estimators
Dancers
Painters, Artistic
Pharmacists
Podiatrists
Singers
Athletic Trainers

TECHNICAL WORKERS

All Other Engineering Technicians
Mechanical Engineering Technicians
Specification Writers, Engineering
Industrial Engineering Technicians

All Other Medical & Dental Technicians
Surgical Technicians
Pharmacy Helpers
Cytotechnologists
Histologic Technologists
Electrocardiograph Technicians
Electroencephalograph Technicians
Dietetic Technicians

All Other Technicians
Museum Technicians &/or Restorers

SERVICE WORKERS

All Other Food Service Workers
Bakers, Bread &/or Pastry

All Other Service Workers
Costumers
Escorts &/or Chaperons
Psychiatric Aides
Game & Ride Operators & Concession Workers
Scalp Treatment Operators
Wig Dressers
Guides, Sightseeing or Establishment
Occupational Therapy Aides
Mortuary Beauticians

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PIMA COUNTY (CONTD.)

CLERICAL WORKERS

All Other Office Machine Operators
Peripheral EDP Equipment Operators

All Other Office Clerical Workers
Credit Reporters
Media Clerks, Estimators &/or Billers
Library Assistants (Exc. Tech.)
Procurement Clerks
Travel Counselors, Auto Club
Eligibility Workers, Welfare

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Electrical Instrument Repairers
Gunsmiths
Office Machine &/or Cash Register Servicers
Refrigeration/Air Conditioning Mechanics
Coin/Vending-Machine Servicers & Repairers
Data Processing Machine Repairers

All Other Darkroom Workers
Multiple-Photographic-Printer Operators
Print Developers, Machine
Photo Checkers & Assemblers
Copy Camera Operators

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Skilled Craft Workers
Jewelers &/or Silversmiths
Photo Retouchers/Colorists & Airbrush Artists
Sign Erectors
Watchmakers
Bus Drivers, School

All Other Operatives & Semiskilled Workers
Billposters
Blueprinting Machine Operators
Fumigators
Sewing Machine Opers., Special Equip.-Garment
Sewing Machine Opers., Reg. Equip.-Nongarment
Septic Tank Servicers &/or Sewer Pipe Cleaners
Testers

All Other Laborers & Unskilled Workers
Order Fillers
Animal Caretakers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PINAL COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	257	301	44	38	82
TOTAL PROFESSIONAL WORKERS	501	588	87	70	157
All Engineers	13	16	3	0	3
Teachers, Elementary &/or Preschool	18	21	3	3	6
All Photographers	1	1	0	0	0
Accountants & Auditors	23	27	4	3	7
Caseworkers	18	21	3	3	6
Dentists	16	19	3	2	5
Lawyers	23	27	4	3	7
Nurses, Professional (Exc. Practical Nurses)	26	31	5	5	10
Optometrists	14	17	3	2	5
Personnel & Labor Relations Specialists	11	13	2	1	3
Physicians &/or Surgeons	33	39	6	5	11
Sports Instructors	7	8	1	1	2
All Therapists	11	14	3	1	4
All Other Professional Workers	287	334	47	41	88
TOTAL TECHNICAL WORKERS	133	155	22	22	44
All Engineering Technicians	24	27	3	2	5
All Science Technicians	2	2	0	0	0
Dental Assistants	16	19	3	4	7
Licensed Practical Nurses	18	21	3	4	7
Radiologic Technicians	3	4	1	0	1
Dental Hygienists	11	13	2	3	5
Medical Lab Technicians	4	5	1	1	2
All Other Medical & Dental Technicians	27	31	4	5	9
All Other Technicians	28	33	5	3	8
TOTAL SERVICE WORKERS	410	476	66	83	149
Janitors, Porters & Cleaners	49	57	8	9	17
Maids	49	56	7	12	19
Guards & Doorkeepers	15	18	3	1	4
Bartenders	26	30	4	4	8
Kitchen Helpers	31	36	5	6	11
Waiters or Waitresses	51	59	8	11	19
Cooks, Restaurant (Exc. Supervisory Chefs)	26	30	4	4	8
Cooks, Institutions	17	20	3	3	6
All Other Food Service Workers	27	32	5	4	9
Cosmetologists &/or Women's Hairstylists	59	69	10	16	26
Housekeepers	4	5	1	1	2
Child-Care Workers	10	12	2	3	5
Medical Assistants	11	13	2	3	5
All Other Service Workers	35	39	4	6	10
TOTAL MAINTENANCE & PRODUCTION WORKERS	271	316	45	33	78
Mechanics, Automotive	22	26	4	2	6
All Other Mechanics & Repairers	17	20	3	1	4
Laundry Operators, Small Establishment	6	7	1	2	3
Machinists	10	12	2	1	3
Maintenance Repairers, General Utility	22	26	4	2	6
Trades Helpers	30	35	5	3	8
Motion Picture Projectionists	6	7	1	1	2
Gardeners & Groundskeepers	36	42	6	7	13
All Other Skilled Craft Workers	89	103	14	10	24
All Other Operatives & Semiskilled Workers	25	29	4	3	7
All Other Laborers & Unskilled Workers	8	9	1	1	2
TOTAL CLERICAL WORKERS	430	508	78	95	173
All Office Machine Operators	20	24	4	3	7
Accounting Clerks	25	29	4	5	9

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PINAL COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Bookkeepers, Hand	16	19	3	3	6
Cashiers (Inc. Cashier-Checkers)	32	38	6	7	13
General Clerks, Office	17	20	3	4	7
Desk Clerks	18	21	3	4	7
Insurance Clerks, Medical	11	13	2	2	4
Payroll &/or Timekeeping Clerks	4	5	1	1	2
Receptionists	35	42	7	9	16
Secretaries	137	161	24	32	56
Switchboard Operator-Receptionists	10	12	2	3	5
Typists (Inc. Clerk Typists)	29	34	5	8	13
All Other Office Clerical Workers	69	81	12	13	25
All Other Plant Clerical Workers	7	9	2	1	3
TOTAL SALES WORKERS	10	12	2	1	3
Sales Clerks (Exc. Cashiers)	9	11	2	1	3
All Sales Reps., Agents &/or Associates	1	1	0	0	0
TOTAL ALL OCCUPATIONS	2,012	2,356	344	342	686

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Therapists
Manual-Arts, Music &/or Rec. Therapists
Respiratory Therapists

All Other Professional Workers
Psychologists
Vocational & Education Counselors
Architects (Exc. Landscape Architects)
Choirmasters
Cost Estimators
Dietitians &/or Nutritionists
Embalmers
Law Clerks
Musicians, Instrumental
Paralegal Personnel
Public-Relations Practitioners
Community Organization Workers
Group Recreation Workers

TECHNICAL WORKERS

All Engineering Technicians
Drafters
Surveyors (Exc. Surveyor Helpers)
Civil Engineering Technicians

All Other Medical & Dental Technicians
Physician's Assistants
Medical-Record Librarians
Medical Laboratory Technologists
Dietetic Technicians

SERVICE WORKERS

All Other Food Service Workers
Dining Rm./Cafeteria Attends. & Bartdr. Helpers
Hosts/Hostesses, Restaurant, Lounge or Coffee Shops
Counter Attends., Lunch, Coffee Shop or Cafeteria

SERVICE WORKERS (CONTD.)

All Other Service Workers
Child-Care Attendants
Barbers
Supervisors, Nonworking-Service
Funeral Attendants
Nurse's Aides &/or Orderlies
Recreation Facility Attendants
Ushers, Lobby Attendants & Ticket Takers
Social Service Aides

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Body Repairers, Automotive
Farm Equipment Mechanics
Mechanics, Maintenance (Exc. Millwrights)
Pinsetter Mechanics, Automatic
Refrigeration/Air Conditioning Mechanics

All Other Skilled Craft Workers
Bus Drivers
Dry-Cleaning-Machine Operators
Carpenters (Exc. Cabinetmakers)
Electricians
Supervisors, Nonworking
Painters, Automotive
Alteration Tailors (Exc. Menders & Custom Sewers)
Welders & Flamecutters
Opticians, Dispensing &/or Optical Mechanics
Bus Drivers, School

All Other Operatives & Semiskilled Workers
Pressers, Machine (Exc. Laundry Pressers, Machine)
Truck Drivers
Delivery & Route Workers
Chauffeurs

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

PINAL COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Laborers & Unskilled Workers
Animal Caretakers
Pin Chasers

CLERICAL WORKERS

All Other Office Machine Operators
Bookkeeping &/or Billing Machine Operators
Computer Operators
Duplicating Machine Operators

CLERICAL WORKERS (CONTD.)

All Other Office Clerical Workers
Collectors
Counter Clerks
File Clerks
Mail Clerks
Order Clerks
Personnel Clerks
Statistical Clerks
Clerical Supervisors, Office or Plant
Teacher's Aides &/or Ed. Assistants
Stock Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

SANTA CRUZ COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	53	61	8	8	16
TOTAL PROFESSIONAL WORKERS	89	103	14	14	28
Accountants & Auditors	17	20	3	3	6
Physicians &/or Surgeons	8	9	1	1	2
Sports Instructors	3	3	0	0	0
All Other Professional Workers	61	71	10	10	20
TOTAL TECHNICAL WORKERS	9	9	0	1	1
All Engineering Technicians	4	4	0	0	0
All Other Technicians	5	5	0	1	1
TOTAL SERVICE WORKERS	366	413	47	67	114
Maids	66	74	8	16	24
All Other Janitors, Porters & Cleaners	11	12	1	2	3
All Guards & Doorkeepers	1	1	0	0	0
Bartenders	21	24	3	3	6
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	28	32	4	2	6
Hosts/Hostesses, Restaurant, Lounge or Coffee Shop	9	10	1	2	3
Kitchen Helpers	50	57	7	9	16
Waiters or Waitresses	70	79	9	16	25
Cooks, Short Order &/or Specialty Fast Foods	7	8	1	1	2
Cooks, Restaurant (Exc. Supervisory Chefs)	33	37	4	5	9
All Other Food Service Workers	11	13	2	2	4
Bellhops, Porters, Doorkeepers & Rm. Srvce. Attdts.	17	19	2	1	3
Housekeepers	5	6	1	1	2
Medical Assistants	7	8	1	2	3
All Other Service Workers	30	33	3	5	8
TOTAL MAINTENANCE & PRODUCTION WORKERS	150	170	20	21	41
All Mechanics & Repairers	14	16	2	1	3
Laundry Operators, Small Establishment	15	17	2	4	6
Maintenance Repairers, General Utility	39	44	5	4	9
Gardeners & Groundskeepers	21	24	3	4	7
All Other Skilled Craft Workers	12	14	2	2	4
All Other Operatives & Semiskilled Workers	46	52	6	6	12
All Other Laborers & Unskilled Workers	3	3	0	0	0
TOTAL CLERICAL WORKERS	137	157	20	28	48
Accounting Clerks	12	14	2	2	4
Bookkeepers, Hand	10	12	2	2	4
Cashiers (Inc. Cashier-Checkers)	7	8	1	1	2
General Clerks, Office	29	34	5	6	11
Desk Clerks	26	29	3	6	9
Receptionists	15	18	3	4	7
Secretaries	17	20	3	4	7
All Other Office Clerical Workers	18	19	1	3	4
All Other Plant Clerical Workers	3	3	0	0	0
TOTAL SALES WORKERS	5	6	1	1	2
TOTAL ALL OCCUPATIONS	809	919	110	140	250

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

SANTA CRUZ COUNTY (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Teachers, Elementary &/or Preschool
Caseworkers
Dentists
Embalmers
Law Clerks
Lawyers
Nurses, Professional (Exc. Practical Nurses)
Public-Relations Practitioners
Community Organization Workers
Tax Preparers
Group Recreation Workers

SERVICE WORKERS

All Other Food Service Workers
Food Prep. & Service Wrks., Fast Food Restaurant
Pantry, Sandwich &/or Coffee Makers
Cooks, Institution

All Other Service Workers
Cosmetologists &/or Women's Hairstylists
Supervisors, Nonworking-Service
Funeral Attendants
Manicurists
Recreation Facility Attendants
Shampooers
Social Service Aides

CLERICAL WORKERS

All Other Office Clerical Workers
Desk Clerks, Bowling Floor
File Clerks
Payroll &/or Timekeeping Clerks
Switchboard Operator-Receptionists
Typists (Inc. Clerk-Typists)
Clerical Supervisors, Office or Plant
Teacher's Aides &/or Ed. Assistants

MAINTENANCE & PRODUCTION WORKERS

All Mechanics & Repairers
Mechanics, Automotive
Body Repairers, Automotive

All Other Skilled Craft Workers
Dry-Cleaning-Machine Operators
Painters, Automotive
Welders & Flamecutters

All Other Operatives & Semiskilled Workers
Rug Cleaners, Hand
Truck Drivers
Exterminators
Parking Lot Attendants
Fuel Pump Attendants &/or Lubricators
Surveyor Helpers
Chauffeurs

SALES WORKERS

Contribution Solicitors

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

YAVAPAI COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	180	209	29	26	55
TOTAL PROFESSIONAL WORKERS	291	337	46	40	86
All Engineers	1	1	0	0	0
Accountants & Auditors	22	26	4	3	7
Caseworkers	38	44	6	7	13
Chiropractors	7	8	1	2	3
Dentists	14	17	3	1	4
Embalmers	6	7	1	1	2
Lawyers	37	43	6	4	10
Nurses, Professional (Exc. Practical Nurses)	34	40	6	7	13
Physicians &/or Surgeons	29	34	5	4	9
Public-Relations Practitioners	3	4	1	0	1
Group Recreation Workers	41	48	7	6	13
All Other Professional Workers	59	65	6	5	11
TOTAL TECHNICAL WORKERS	123	147	24	23	47
All Engineering Technicians	34	40	6	2	8
All Science Technicians	2	2	0	0	0
Dental Assistants	36	43	7	10	17
Licensed Practical Nurses	14	17	3	3	6
Radiologic Technicians	4	5	1	1	2
Dental Hygienists	20	24	4	5	9
Medical Laboratory Technicians	9	11	2	2	4
All Other Medical & Dental Technicians	1	1	0	0	0
All Other Technicians	3	4	1	0	1
TOTAL SERVICE WORKERS	710	819	109	155	264
Maids	177	202	25	43	68
All Other Janitors, Porters & Cleaners	60	70	10	12	22
All Guards & Doorkeepers	5	6	1	0	1
Bartenders	19	22	3	3	6
Kitchen Helpers	34	39	5	6	11
Waiters or Waitresses	29	33	4	6	10
Cooks, Restaurant (Exc. Supervisory Chefs)	18	20	2	3	5
Cooks, Institution	21	24	3	3	6
All Other Food Service Workers	31	36	6	5	11
Cosmetologists &/or Women's Hairstylists	53	61	8	14	22
Housekeepers	6	7	1	1	2
Recreation Facility Attendants	30	35	5	4	9
Social Service Aides	9	11	2	2	4
Medical Assistants	22	26	4	5	9
All Other Service Workers	196	227	32	48	80
TOTAL MAINTENANCE & PRODUCTION WORKERS	332	383	51	42	93
Mechanics, Automotive	21	24	3	2	5
Body Repairers, Automotive	15	17	2	1	3
All Other Mechanics & Repairers	9	11	2	0	2
Markers, Classifiers & Wet Wash Assemblers	7	8	1	2	3
Washers, Machine &/or Starchers	15	17	2	4	6
Dry-Cleaning-Machine Operators	4	5	1	1	2
Exterminators	14	17	3	2	5
Folgers, Laundry	8	9	1	2	3
Maintenance Repairers, General Utility	68	78	10	6	16
Trades Helpers	6	7	1	1	2
Gardeners & Groundskeepers	21	24	3	4	7
All Other Skilled Craft Workers	48	55	7	6	13
All Other Operatives & Semiskilled Workers	51	59	8	5	13
All Other Laborers & Unskilled Workers	45	52	7	6	13
TOTAL CLERICAL WORKERS	465	541	76	101	177
All Office Machine Operators	13	16	3	2	5

**ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES**

YAVAPAI COUNTY (CONTD.)

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
Accounting Clerks	4	5	1	1	2
Bookkeepers, Hand	45	52	7	9	16
Cashiers (Inc. Cashier-Checkers)	18	21	3	4	7
Counter Clerks	6	7	1	1	2
File Clerks	6	7	1	2	3
General Clerks, Office	74	86	12	16	28
Desk Clerks	46	52	6	10	16
Insurance Clerks, Medical	11	13	2	2	4
Payroll &/or Timekeeping Clerks	6	7	1	1	2
Receptionists	63	74	11	17	28
Secretaries	82	95	13	19	32
Switchboard Operator-Receptionists	7	8	1	2	3
Messengers	7	8	1	1	2
Typists (Inc. Clerk-Typists)	15	18	3	4	7
Clerical Supervisors, Office or Plant	8	9	1	1	2
All Other Office Clerical Workers	39	45	6	7	13
Stock Clerks	11	13	2	1	3
All Other Plant Clerical Workers	4	5	1	1	2
TOTAL SALES WORKERS	8	9	1	1	2
TOTAL ALL OCCUPATIONS	2,109	2,445	336	388	724

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
 Chemists
 Psychologists
 Systems Analysts, Business
 Teachers, Voc. Ed. or Training
 Teachers, Adult Education
 Teachers, Elementary &/or Secondary
 Purchasing Agents &/or Buyers
 Architects (Exc. Landscape Architects)
 Media Buyers
 Dietitians &/or Nutritionists
 Writers &/or Editors
 Law Clerks
 Librarians, Professional
 Optometrists (Exc. Opticians)
 Paralegal Personnel
 Sports Instructors
 Community Organization Workers
 Tax Preparers

TECHNICAL WORKERS

All Engineering Technicians
 Computer Programmers
 Drafters
 Surveyors (Exc. Surveyor Helpers)
 All Other Technicians
 Physical Therapy Assistants

SERVICE WORKERS

All Other Food Service Workers
 Bakers, Bread &/or Pastries
 Hosts/Hostesses, Restaurant, Lounge or Coffee Shop
 Counter Attends., Lunch, Coffee Shop or Cafeteria
 Cooks, Short Order &/or Specialty Fast Foods
 Food Prep. & Service Workers, Fast Food Restaurant
 All Other Service Workers
 Child Care Attendants
 Barbers
 Funeral Attendants
 Manicurists
 Nurse's Aides &/or Orderlies
 Ushers, Lobby Attendants & Ticket Takers
 Shampooers
 Child-Care Workers

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
 Laundry-Machine Mechanics
 Pinsetter Mechanics, Automotive
 Refrigeration/Air Conditioning Mechanics
 All Other Skilled Craft Workers
 Spotters, Dry Cleaning
 Pressers, Machine, Laundry
 Bus Drivers
 Carpenters
 Electricians
 Supervisors, Nonworking

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

YAVAPAI COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Machinists
Musical Instrument Repairers
Painters, Automotive
Motion Picture Projectionists
Dental Laboratory Technicians
Furniture Upholsterers
Automobile Seat Cover & Top Installers
All Other Operatives & Semiskilled Workers
Laundry Operators, Small Establishment
Pressers, Machine (Exc. Laundry Pressers, Machine)
Rug Cleaners, Machine
Delivery & Route Workers
Fumigators
Menders (Exc. Seamstresses & Alteration Tailors)
Tire Fabricators &/or Repairers
Welders & Flamecutters
Surveyor Helpers
Glass Installers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Laborers & Unskilled Workers
Tumbler Operators
Production Packagers, Hand or Machine

CLERICAL WORKERS

All Office Machine Operators
Bookkeeping &/or Billing Machine Operators
Computer Operators
Key punch Operators
All Other Office Clerical Workers
Stenographers
Desk Clerks, Bowling Floor
Order Clerks
Switchboard Operators
Teacher's Aides &/or Educational Assistants

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

YUMA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	352	410	58	51	109
TOTAL PROFESSIONAL WORKERS	591	686	95	85	180
All Engineers	32	38	6	3	9
All Natural & Mathematical Scientists	1	1	0	0	0
All Physical Scientists	4	5	1	0	1
All Social Scientists	8	9	1	1	2
Vocational & Educational Counselors	14	16	2	2	4
Teachers, Elementary &/or Preschool	58	67	9	11	20
All Other Teachers	22	26	4	3	7
Purchasing Agents &/or Buyers	3	3	0	0	0
Accountants & Auditors	128	149	21	19	40
Caseworkers	37	43	6	7	13
Dentists	7	8	1	1	2
Dietitians &/or Nutritionists	3	4	1	1	2
Lawyers	42	49	7	5	12
Nurses, Professional (Exc. Practical Nurses)	33	39	6	7	13
Physicians &/or Surgeons	48	57	9	7	16
Sports Instructors	29	34	5	3	8
Group Recreation Workers	7	8	1	1	2
All Therapists	8	9	1	1	2
All Other Professional Workers	107	121	14	13	27
TOTAL TECHNICAL WORKERS	164	192	28	26	54
Drafters	20	23	3	2	5
All Other Engineering Technicians	14	16	2	0	2
All Science Technicians	10	12	2	1	3
Dental Assistants	22	26	4	6	10
Licensed Practical Nurses	34	40	6	8	14
Radiologic Technicians	7	8	1	1	2
Dental Hygienists	8	9	1	2	3
All Other Medical & Dental Technicians	13	16	3	3	6
All Other Technicians	36	42	6	3	9
TOTAL SERVICE WORKERS	1,140	1,320	180	223	403
Janitors, Porters & Cleaners	7	8	1	1	2
Maids	179	204	25	44	69
House Cleaners	50	59	9	11	20
All Other Janitors, Porters & Cleaners	70	81	11	13	24
Guards & Doorkeepers	78	92	14	5	19
Bartenders	64	74	10	9	19
Dining Rm./Cafeteria Attends. & Bartdr. Helpers	30	34	4	2	6
Kitchen Helpers	44	51	7	8	15
Waiters or Waitresses	142	163	21	32	53
Cooks, Restaurant (Exc. Supervisory Chefs)	37	42	5	6	11
Cooks, Institution	19	22	3	3	6
All Other Food Service Workers	33	38	5	5	10
Cosmetologists &/or Women's Hairstylists	85	99	14	23	37
Supervisors, Nonworking-Service	13	15	2	1	3
Housekeepers	14	16	2	3	5
Nurse's Aides &/or Orderlies	65	77	12	15	27
Child-Care Workers	46	53	7	13	20
Medical Assistants	16	19	3	4	7
All Other Service Workers	148	173	25	25	50
TOTAL MAINTENANCE & PRODUCTION WORKERS	575	663	88	64	152
Mechanics, Automotive	123	143	20	10	30
Body Repairers, Automotive	12	14	2	1	3
All Other Mechanics & Repairers	49	56	7	5	12
Washers, Machine &/or Starchers	10	12	2	3	5

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

YUMA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Laundry Operators, Small Establishment	14	16	2	4	6
Pressers, Hand	6	7	1	2	3
Pressers, Machine (Exc. Laundry Pressers, Machine)	8	9	1	1	2
Pressers, Machine, Laundry	10	12	2	3	5
Delivery & Route Workers	11	13	2	1	3
Electricians	3	3	0	0	0
Exterminators	24	28	4	3	7
Folders, Laundry	4	5	1	1	2
Maintenance Repairers, General Utility	52	60	8	5	13
Trades Helpers	21	24	3	2	5
Menders (Exc. Seamstress & Alteration Tailor)	6	7	1	1	2
Painters, Automotive	12	14	2	1	3
Production Packagers, Hand or Machine	3	3	0	0	0
Alteration Tailors (Exc. Menders & Custom Sewers)	4	5	1	1	2
Welders & Flamecutters	10	12	2	1	3
Gardeners & Groundskeepers	32	37	5	6	11
All Other Skilled Craft Workers	83	94	11	6	17
All Other Operatives & Semiskilled Workers	30	34	4	2	6
All Other Laborers & Unskilled Workers	48	55	7	5	12
TOTAL CLERICAL WORKERS	807	936	129	175	304
Bookkeeping &/or Billing Machine Operators	5	6	1	1	2
Computer Operators	14	16	2	2	4
Keypunch Operators	8	9	1	2	3
Accounting Clerks	27	31	4	5	9
Bookkeepers, Hand	57	66	9	11	20
Car Rental Clerks	8	9	1	2	3
Cashiers (Inc. Cashier-Checkers)	48	55	7	10	17
Collectors	15	18	3	2	5
Counter Clerks	15	17	2	3	5
File Clerks	9	10	1	3	4
General Clerks, Office	82	96	14	18	32
Desk Clerks	39	44	5	8	13
Insurance Clerks, Medical	18	21	3	4	7
Payroll &/or Timekeeping Clerks	9	11	2	2	4
Receptionists	83	98	15	22	37
Secretaries	161	187	26	38	64
Switchboard Operator-Receptionists	19	22	3	5	8
Typists (Inc. Clerk-Typists)	40	47	7	11	18
Teacher's Aides &/or Educational Assistants	60	70	10	11	21
All Other Office Clerical Workers	63	72	9	12	21
Stock Clerks, Stockroom, Warehouse or Storage Yard	18	21	3	2	5
All Other Plant Clerical Workers	9	10	1	1	2
TOTAL SALES WORKERS	31	37	6	4	10
Sales Reps., Agents &/or Associates	10	12	2	1	3
All Other Sales Agents, Associates &/or Reps.	4	5	1	1	2
All Other Sales Workers	17	20	3	2	5
TOTAL ALL OCCUPATIONS	3,660	4,244	584	623	1,212

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Engineers
Civil Engineers
Electrical & Electronic Engineers

PROFESSIONAL WORKERS (CONTD.)

All Social Scientists
Psychologists

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

YUMA COUNTY (CONTD.)

PROFESSIONAL WORKERS (CONTD.)

- All Other Teachers
 - Teachers, Vocational Education or Training
 - Teachers, Adult Education
- All Therapists
 - Occupational Therapists
 - Physical Therapists
- All Other Professional Workers
 - Systems Analysts, EPD
 - Systems Analysts, Business
 - Systems Analysts, Scientific & Technical
 - Media Buyers
 - Directors, Camp
 - Chiropractors
 - Dance Instructors
 - Writers &/or Editors
 - Employment Interviewers
 - Law Clerks
 - Librarians, Professional
 - Curators, Museum
 - Musicians, Instrumental
 - Optometrists (Exc. Opticians)
 - Personnel & Labor Relations Specialists
 - Pharmacists
 - Podiatrists
 - Public-Relations Practitioners
 - Designers (Exc. Design Engineers)
 - Community Organization Workers
 - Tax Preparers

TECHNICAL WORKERS

- All Other Engineering Technicians
 - Computer Programmers
 - Computer Programmers, Business
 - Engineering Technicians
 - Electrical & Electronic Technicians
 - Surveyors (Exc. Surveyor Helpers)
- All Medical & Dental Technicians
 - Physician's Assistants
 - Pharmacy Helpers
 - Medical Laboratory Technologists
 - Medical Laboratory Technicians
 - Blood Bank Technology Specialists
- All Other Technicians
 - Technical Assistants, Library
 - Mathematical Technicians

SERVICE WORKERS

- All Other Food Service Workers
 - Cooks, Short Order &/or Specialty Fast Foods
 - Pantry, Sandwich &/or Coffee Makers
- All Other Service Workers
 - Child Care Attendants
 - Barbers
 - Bellhops, Porters, Doorkpr. & Rm. Srvce. Attdts.
 - Recreation Facility Attendants
 - Game & Ride Operators & Concession Workers
 - Ushers, Lobby Attendants & Ticket Takers
 - Instructors, Reducing
 - Social Service Aides

MAINTENANCE & PRODUCTION WORKERS

- All Other Mechanics & Repairers
 - Camera Repairers
 - Diesel Mechs. (Exc. Auto & Eng. Equip. Mechs.)
 - Laundry-Machine Mechanics
 - Pinsetter Mechanics, Automatic
 - Refrigeration/Air Conditioning Mechanics
 - Coin /Vending-Machine Repairers
 - Data Processing Machine Repairers
- All Other Skilled Craft Workers
 - Developers &/or Projection Printers
 - Film Printers, Motion Picture Films
 - Spotters, Dry Cleaning
 - Spotters, Washable Materials
 - Dry-Cleaning-Machine Operators
 - Dry-Cleaners, Hand
 - Bus Drivers
 - Carpenters (Exc. Cabinetmakers)
 - Compositors &/or Typesetters
 - Supervisors, Nonworking
 - Instrument Repairers
 - Machinists
 - Plumbers &/or Pipefitters
 - Motion Picture Projectionists
 - Dental-Laboratory Technicians
 - Sheet Metal Workers
 - Termite Treaters
 - Opticians, Dispensing &/or Optical Mechanics
 - Furniture Upholsterers
 - Automobile Seat Cover & Top Installers
 - Bus Drivers, School
- All Other Operatives & Semiskilled Workers
 - Markers, Classifiers, Wet Wash Assemblers
 - Billposters
 - Fumigators
 - Inspectors
 - Sewing Machine Opers., Reg. Equip.-Nongarment
 - Surveyor Helpers
 - Glass Installers
 - Rental Car Deliverers
 - Chauffeurs
- All Other Laborers & Unskilled Workers
 - Painters, Automotive
 - Cleaners, Vehicle
 - Tumbler Operators

CLERICAL WORKERS

- All Other Office Clerical Workers
 - Stenographers
 - In-File Operators
 - Library Assistants (Exc. Techs.)
 - Mail Clerks
 - Personnel Clerks
 - Statistical Clerks
 - Switchboard Operators
 - Travel Clerks
 - Clerical Supervisors, Office or Plant

ESTIMATED EMPLOYMENT AND JOB OPENINGS
SERVICES

YUMA COUNTY (CONTD.)

CLERICAL WORKERS (CONTD.)

All Other Plant Clerical Workers
Production Clerks &/or Coordinators
Shipping Packers
Dispatchers, Vehicle, Service or Work

SALES WORKERS

All Other Sales Workers
Sales Clerks (Exc. Cashiers)

METHODOLOGY

Limitations of the Data

The projection methods do not account for cyclical, seasonal, and such factors as the sudden opening and closing of large establishments. Caution is advised in the use of employment forecast data for industries with limited employment - especially in the smaller counties. The establishment or closing of a single firm could have a profound effect on a county's employment and demand.

The occupational data in this publication refer only to employees who earned a wage or salary. Self-employed and unpaid family workers are not represented in the statistics.

Sample Selection and Response Rate

Occupational estimates for the services industry were developed from a survey of employers throughout the state. Employers who were asked to participate in the survey were selected from a master employer file of firms doing business in Arizona, using standardized sampling techniques. A sample of establishments employing 4-99 employees and all establishments having 100 or more employees were surveyed. The entire sample was composed of 5,837 firms with a usable response rate of 86 percent.

Employment Projections

Services employment was projected using regression analysis and was adjusted to reflect recent industry developments. The 1985 occupational employment was calculated by applying staffing pattern ratios (as determined by the survey) to the industry projections.

Job Openings

The difference between 1981 and 1985 employment for each occupation represents expected job openings due to growth. Job openings due to separations were calculated by interpolating 1970 and 1985 separation rates for each occupation¹ and applying them to the occupational employment projections. "Total job openings" is the sum of openings due to growth and separations. These data do not include openings resulting from turnover, i.e., openings created when a worker changes jobs.

¹"Tomorrow's Manpower Needs," Supplement No. 4, BLS, 1974, pp. 11-16.

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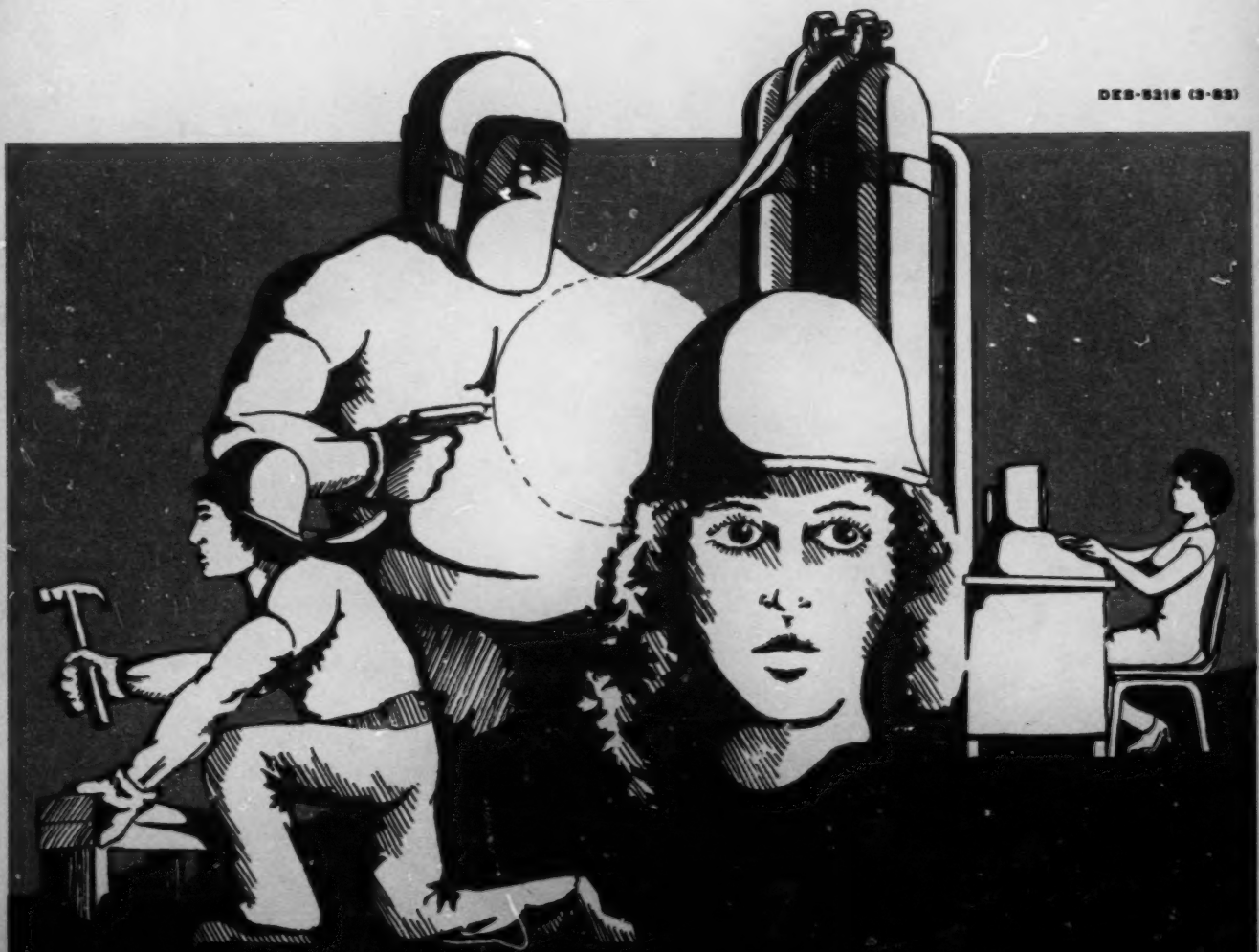
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Construction

March 1983

DES-8216 (3-83)



ARIZONA OCCUPATIONAL PROFILE

A Labor Market Information Publication of the Arizona Department of Economic Security



OCCUPATIONAL PROFILES

The value of current and accurate occupational employment information has long been recognized by job seekers, public and private administrators, and those involved in training, recruiting, and counseling. A major source of this information in Arizona is the Occupational Employment Statistics (OES) Program - a cooperative effort between Arizona and the U.S. Bureau of Labor Statistics.

This Occupational Profile is one in a series of publications produced from information developed by the Occupational Employment Statistics survey. These publications represent one of several occupational employment information delivery systems incorporating OES survey data. The survey is used to collect employment data, by county, for over 1,000 occupations in Arizona. From these surveys, which require the cooperation of the Arizona business community, current employment in the various occupations is determined, and from this an occupational outlook is formulated. The Occupational Profiles contain the survey findings and examine, individually, the industries of Arizona.

Surveyed industries include:

- Mining
- Construction
- Manufacturing
- Transportation, Communications, and Public Utilities
- Trade
- Finance, Insurance, and Real Estate
- Services
- Government

For further information, or to comment on any aspect of this program, please write to the address on the back cover.

INDUSTRY INFORMATION

INDUSTRY DESCRIPTION

Occupational employment estimates for the construction industry in Arizona are provided in this publication for the state and counties. Firms included represent those involved in new work, additions, alterations and repairs.

Three broad types of construction activity are recognized: namely, 1) building construction by general contractors or by operative builders, 2) general contractors not constructing buildings, and 3) construction by special trade contractors. Investment builders who build structures on their own account for rental are classified in the real estate industry, but separate establishments primarily engaged in construction for the investment builder are classified in this division.

General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other such projects. General contractors not constructing buildings (often referred to as heavy construction contractors) are primarily engaged in the construction of highways, streets, bridges, dams, and water projects.

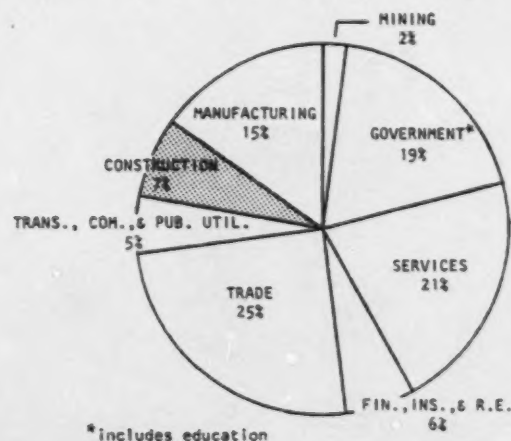
Special trade contractors are primarily engaged in specialized construction activities such as plumbing, painting, and electrical work.

A more detailed description of the types of firms surveyed is provided in the Standard Industrial Classification Manual¹ under codes 15, 16 and 17.

INDUSTRY CHARACTERISTICS

Employment of workers earning a wage or salary in construction averaged 70,000 in 1981 - representing 7 percent of Arizona's more than 1 million

FIGURE 1: ARIZONA EMPLOYMENT BY INDUSTRY, 1981



¹Office of Management and Budget, *Standard Industrial Classification Manual*, 1972 Edition, pp. 45-56.

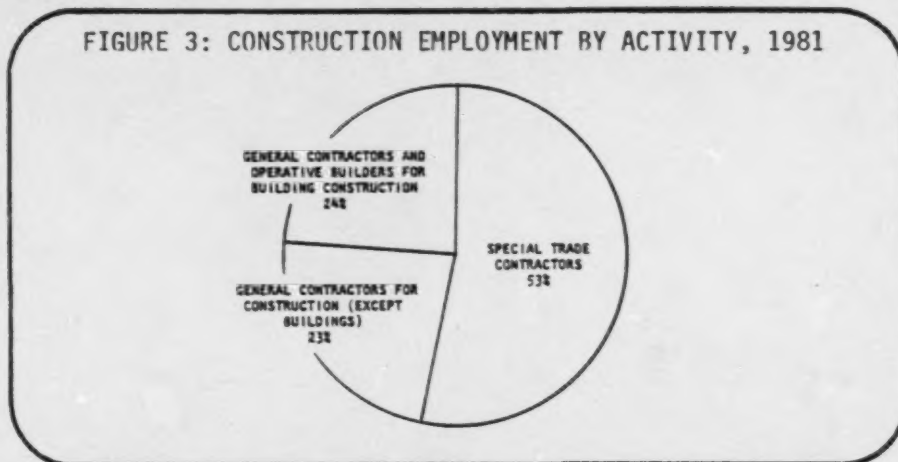
workers. One of every two construction workers in Arizona is a special trades contractor - most doing masonry, stonework, and plastering; plumbing, heating and air conditioning, and electrical work. Special trades contractors may work on subcontract from the general constructors or they may work directly for the owner.

The other half of Arizona's construction employment is made up of general contractors. Approximately half these workers are employed by general contractors and operative builders for building construction - primarily residential housing. Most of the remainder, who are not constructing buildings, are involved with street and highway construction.

FIGURE 2: SPECIAL TRADE CONTRACTORS EARNING A WAGE OR SALARY, 1981

TRADES	Employment 1981
Masonry, Stonework & Plaster.	8,225
Plumbing, Heat., & Air. Cond.	7,450
Misc. Special Trades	6,375
Electrical Work	5,700
Concrete Work	3,725
Carpentering & Flooring	2,800
Roofing & Sheet Metal Work	2,175
Water Well Drilling	325

FIGURE 3: CONSTRUCTION EMPLOYMENT BY ACTIVITY, 1981



Construction employment is concentrated in metropolitan Phoenix (Maricopa County) and Tucson (Pima County). Ranking far behind are the Yuma (Yuma County), Flagstaff (Coconino County) and Prescott (Yavapai County) areas. Construction employment in Maricopa and Pima counties account for 68 and 18 percent of the state total, respectively, with the remaining 14 percent working in the "balance of state."

Construction firms are generally small - nearly 90 percent employ fewer than 20 workers (as compared to 75 percent for all industries). Those located in the state's two major metropolitan areas tend to be somewhat larger as a result of the location of regional offices and administrative functions.

FIGURE 4: EMPLOYEES EARNING A WAGE OR SALARY IN CONSTRUCTION - JUNE 1981

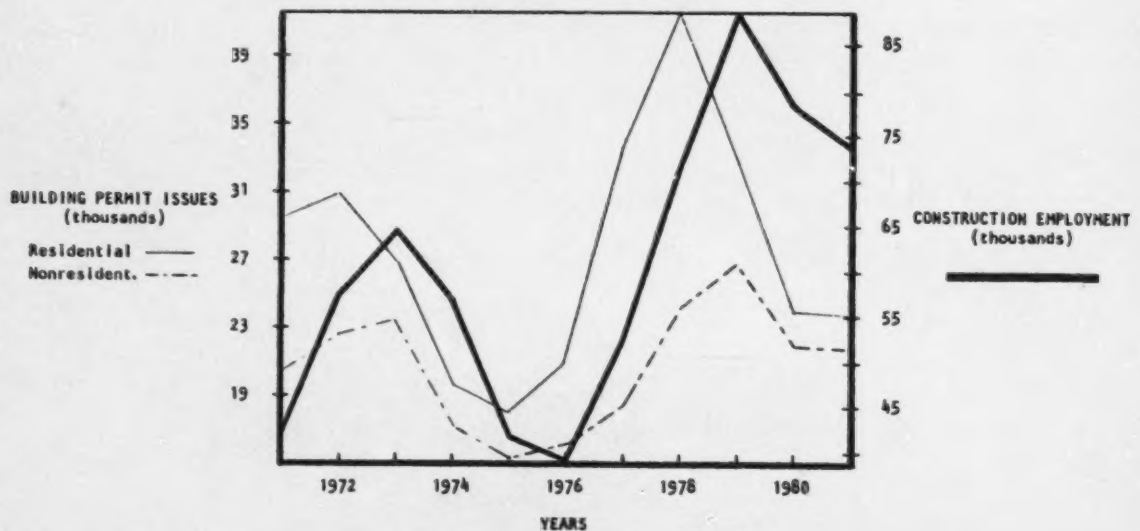
County	Firms	Employment
Apache	50	725
Cochise	160	700
Coconino	230	1,500
Gila	100	325
Graham/Greenlee	50	325
Maricopa	4,110	51,650
Mohave	270	1,125
Navajo	150	725
Pima	1,350	14,075
Pinal	110	475
Santa Cruz	50	250
Yavapai	300	1,300
Yuma	200	2,600
STATE	7,130	75,800

INDUSTRY TRENDS

The addition of many new people in a community generally means an immediate need for more housing, shopping centers, schools, highways and commercial, industrial and government buildings. Much of Arizona's construction activity is a result of the state's rapidly increasing population. As Arizona's population growth rate is greater than the nation's, the local construction industry is also relatively more prominent. In Arizona, the proportion of construction jobs to total employment is nearly 50% higher than the national ratio.

During the past decade, the value of construction work completed in the state quadrupled from about \$1 billion to around \$4 billion. Although much of this increased valuation is the result of inflation, employment also experienced strong growth - from 39,000 construction jobs in December 1970 to a peak of 90,000 in mid-1979. During this same period, 300,000 housing units were built in Phoenix and 90,000 in Tucson.

FIGURE 5: ARIZONA CONSTRUCTION PERMIT ISSUES AND EMPLOYMENT, 1971-1981



The industry, however, and especially homebuilding, was severely affected by the most recent economic downturn. Following the high level of activity in 1979, the decline in contract building in Arizona was significantly greater than the drop nationally. For the period 1979 to 1982, for example, housing starts declined 60 percent in Arizona as compared to 35 percent nationally. Suppressing demand in Arizona for new housing were affordability problems as a result of the cost of homes and high mortgage rates, a comparatively slow population growth, moderate employment expansion, and a sufficient inventory of housing available to forestall a severe shortage.

Employment of Arizona construction workers earning a wage or salary, as well as their share of total Arizona employment, continued its three-year decline as we entered 1983. Although industry employment will rebound, it is unlikely that construction will ever again provide nearly 1 of every 10 jobs in Arizona as it did in 1979. Expansion of manufacturing and service industries will continue to increase their shares of state employment at the expense of, among others, the construction industry. Nationally, one worker in twenty is in construction - a ratio that clearly suggests a long-term employment trend locally.

Due to poor economic conditions, the Arizona construction industry languished in 1981. Residential (single-family) activity declined, commercial activity experienced an increase, and industrial activity remained unchanged. Nearly 83,000 building permits were issued for construction activity in 1981 - off 4 percent from the previous year. Residential permits, which represent the bulk of the total, declined 6 percent. Increasing 43 percent over 1980, permit issues for commercial facilities in Arizona were bolstered by the construction of office buildings in Maricopa County. This activity was the result of the continued movement of regional offices into the Phoenix area and the expansion of local firms. Construction of retail establishments, on the other hand, declined as a result of poor sales and high interest rates.

As 1983 began to unfold, most analysts were predicting an imminent but slow recovery for the construction industry as the housing market was felt to be finally positioned for a turnaround. Primary evidence, for most, was the decline in mortgage interest rates. Although an extended trend was not assured, and the low rates of the 1970s were still but a memory, there were indications of a growing acceptance of higher interest rates. A survey conducted by the Arizona Real Estate Institute for Phoenix Magazine Publishing, Inc. found a "significant" level of acceptance of rates in the 13 to 14 percent range, whereas a rate of 12 percent was found acceptable in previous surveys.

Employment in construction is volatile, and depends on a myriad of factors, including population and real personal income growth, and money and capital market conditions. In the absence of continued improvement of mortgage rates, potential homebuyers will likely consider the variety of new mortgage instruments (some of which have received limited public acceptance) and a diminution in the size of their dream house.

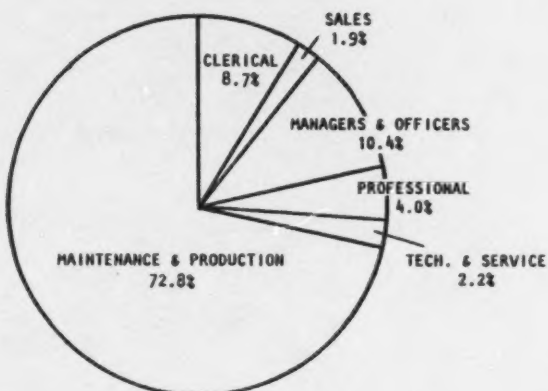
Whatever transpires, the increase in employment is not expected to be as great as the expansion in construction activity. Continued technological developments in construction methods will raise output per worker. An example is the use of prefabricated units such as preassembled outside walls and partitions that can be lifted into place in a single operation. Renewed expansion, however, will increase construction employment nearly 30 percent between 1981 and 1985. Increasing 12 percent from its 1981 level, Arizona's population is projected to top 3.1 million by 1985. Although this population growth does not equal the expansion rates of the past decade, it will provide added impetus for heightened construction activity.

OCCUPATIONAL INFORMATION

OCCUPATIONAL ANALYSIS

Led by carpenters, electricians, plumbers and other trades workers, construction is dominated by maintenance and production workers who represent nearly 3 of every 4 workers in the industry. Trailing a distant second, but representing the industry's largest single occupational

FIGURE 6: OCCUPATIONS IN CONSTRUCTION
MAY 1981



category are managers and officers - by definition, those who make policy, organize, direct, and/or directly supervise the work force or support personnel. Common to all firms, regardless of their construction activities, are clerical workers - representing the industry's third ranking occupational category. With employment of nearly 2,000 in 1981, secretaries represent the dominant clerical occupation, and are followed by bookkeepers with slightly more than 1,000 workers.

The reader is reminded that the scope of this study includes only those workers earning a wage or salary. It is estimated, however, that 1 in 5 construction craft workers is self-employed - most contracting with homeowners and businesses for small jobs. Self-employment is most common in paperhanging, painting, and floor covering work, although it is also found in other trades.

Although job openings can fluctuate greatly, depending on the level of construction activity, most of the industry's occupations will, over the long run, experience employment growth about equal to that of the average for all occupations. Increasing their share of construction employment, however, will be professional, technical and clerical personnel; while losing some of theirs - laborers, operatives and production workers.

Technological improvements and labor-saving devices and techniques will somewhat suppress employment growth of many maintenance and production occupations.

Through the 1980s, construction activity will increase in response to increasing demand for new housing and industrial plants, and as existing plants are renovated to make them more productive and energy efficient. According to the U.S. Department of Labor's Occupational Outlook Handbook¹, construction trades that will grow faster than the average for all occupations include bricklayers and stonemasons, cement masons and terrazzo workers, insulation workers, drywall installers and finishers, and tilesetters. Plasterers and stonemasons, however, will see employment growth that is somewhat slower. It should be remembered that although an occupation is growing rapidly, it may offer relatively few job

FIGURE 7: PREDICTED GROWTH OF CONSTRUCTION TRADES OCCUPATIONS THROUGH THE 1980s

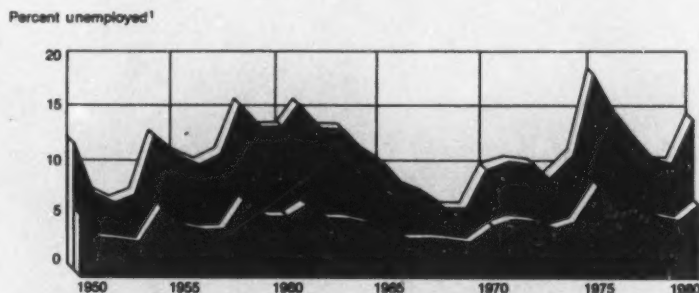
<u>Occupation</u>	<u>Growth Rate</u>	<u>Comments</u>
Bricklayers	Faster than Average	Increased use as decorative work on building fronts and in lobbies and foyers; use in interior load bearing walls and prefab. brick panels.
Stonemasons	Slower than Average	Stone is relatively expensive.
Carpenters	Average	High replacement needs because of large number employed.
Cement Masons & Terrazzo Workers	Faster than Average	Increased use of concrete and prestressed columns; high replacement needs.
Drywall Installers & Finishers	Faster than Average	Continued use as replacement of plaster.
Electricians	Average	High replacement needs because of large number employed.
Floor Covering Installers	Average	Use of plywood rather than hardwood generally requires carpet or resilient floors, versatile materials.
Glaziers	Average	Limited job openings because of small employment.
Insulation Workers	Faster than Average	Increased energy consciousness.
Ironworkers	Average	
Painters & Paperhangers	Average	High replacement needs because of large number employed.
Plasterers	Slower than Average	Increased use of drywall in recent years. Insulating systems that use insulation board and troweled finishes likely to provide resurgence, however.
Plumbers & Pipefitters	Average	High replacement needs because of large number employed.
Roofers	Average	
Sheet Metal Workers	Average	
Tilesetters	Faster than Average	Increased use in hallways and recreation areas of homes and buildings - particularly in warm regions of country.

¹U.S. Department of Labor, *Occupational Outlook Handbook*, 1982-83 Edition, pp. 361-386.

opportunities because its total employment is comparatively limited. For example, tile setters, which are characterized as growing faster than average, number only 370 in Arizona, and will offer approximately 100 job openings between 1981 and 1985. Employment of carpenters, on the other hand, is more than 6,000 and, although growing at an average rate, the occupation will see nearly 3,000 openings for the same period.

Because construction trades often depend on one another - particularly on large projects - work delays or strikes in one trade can delay or stop the work in another. This, in addition to work stoppages caused by

FIGURE 8: NATIONAL UNEMPLOYMENT RATES
IN CONSTRUCTION AND ALL INDUSTRIES COMBINED



inclement weather, boosts unemployment in the industry. Nationally, the unemployment rate in construction is generally more than twice the average for all industries.

Those employed in the various construction trades encounter varying degrees of success in weathering economic downturns and the inevitable periods of depressed construction activity. Many electricians, for example, are able to transfer to positions as maintenance electricians in industries that may not be as severely impacted. Construction workers seeking employment and registered at Arizona Job Service offices in May 1981 were dominated by construction laborers and also included, in ranking order, carpenters, building maintenance repairers, heavy equipment operators and welders.

The most recent depressed condition of the industry notwithstanding, construction employment will increase by more than 20,000 between 1981 and 1985, and will provide more than 30,000 opportunities for job seekers.

FIGURE 9: MOST FREQUENTLY REPORTED
OCCUPATIONS IN ARIZONA'S CONSTRUCTION INDUSTRY

	Employment 1981	Job Openings 1981-1985
Managers & Officers	7,879	3,430
Carpenters	6,272	2,691
Electricians	4,937	1,891
Plumbers &/or Pipefitters	3,394	1,295
Heavy Equipment Operators	3,165	1,431
Cement Masons	2,124	688
Secretaries	1,896	1,013
Truck Drivers	1,842	751
Painters, Maintenance	1,779	603
Sheet Metal Workers	1,689	448
Bricklayers	1,570	452
Supervisors, Nonworking	1,548	639
General Clerks, Office	1,406	679
Cost Estimators	1,316	684
Mechanics, Refrigeration/Air Conditioning	1,261	346
Roofers	1,250	312
Welders & Flamecutters	1,146	593
Bookkeepers, Hand	1,118	505
Dry-Wall Applicators	1,044	252
Tapers	1,003	336
Bricklayer Helpers	820	245
Sales Reps., Agents & Associates (Exc. Real Est.)	757	295
Carpenter Helpers	756	286
Electrician Helpers	683	223
Structural-Steel Workers	675	165
Plasterers	675	165
Plumber &/or Pipefitter Helpers	614	198
Pipelayers	577	320
Sales Reps., Agents & Associates - Real Estate	563	318
Cement Mason Helpers	529	181
Mechanics, Automotive	502	231
Asbestos & Insulation Workers	488	99
Janitors, Porters & Cleaners	485	261
Stock Clerks	433	144
Accountants & Auditors	414	200
Mechanics, Maintenance	414	134

OCCUPATIONAL STRUCTURE

The following thirteen tables provide employment estimates and projected employment and job openings for the counties and the state. Graham and Greenlee counties have been combined due to their close proximity, similar economies, and size. A table for La Paz County is not included as the survey was conducted prior to this county's creation.

When using the data, please note the following:

- 1) The data reflect full and part-time wage and salary employment only, and do not include self-employed or unpaid family workers.
- 2) Total job openings represent the number of openings due to growth of the industry and separations from the labor force. They do not account for labor turnover, i.e., openings created when a worker changes jobs, leaving the job to be filled by someone else. These vacancies are often the largest source of job openings.
- 3) The projection technique does not possess the degree of accuracy that may be implied by small employment and demand figures.
- 4) To eliminate the possible disclosure of confidential employer information, occupations have been added to the appropriate "all other" or residual category if: less than three firms reported a single occupation; one firm reported more than 50 percent of the occupational estimate; two firms combined reported more than 75 percent of the occupational estimate. In certain cases, releases have been obtained from large employers to waive the confidentiality criteria.

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

STATEWIDE

	<u>Estimated 1981 Employment</u>	<u>Percent of Total 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	7,879	10.4	10,111	3,430
TOTAL PROFESSIONAL WORKERS	2,995	4.0	3,990	1,493
Civil Engineers	313	.4	430	162
Electrical & Electronic Engineers	275	.4	389	132
Mechanical Engineers	292	.4	410	137
Safety Engineers	22	.0	31	11
All Other Engineers	67	.1	97	35
Systems Analysts, EDP	21	.0	30	10
Purchasing Agents &/or Buyers	159	.2	201	64
Accountants & Auditors	414	.5	548	200
Cost Estimators	1,316	1.7	1,697	684
Personnel & Labor Relations Specialists	29	.0	41	16
All Other Professional Workers	87	.1	116	42
TOTAL TECHNICAL WORKERS	566	.7	737	220
Computer Programmers	57	.1	79	26
Drafters	259	.3	321	86
Electrical & Electronic Technicians	57	.1	70	16
Surveyors	102	.1	146	51
Mechanical Engineering Technicians	9	.0	14	5
Civil Engineering Technicians	29	.0	33	9
All Other Engineering Technicians	40	.1	57	22
All Other Technicians	13	.0	17	5
TOTAL SERVICE WORKERS	1,147	1.5	1,578	633
Janitors, Porters & Cleaners	485	.6	651	261
Guards & Doorkeepers	171	.2	242	83
Food Service Workers (Exc. Cashiers)	345	.5	490	212
Supervisors, Nonworking-Service	30	.0	36	9
All Other Service Workers	116	.2	159	68
TOTAL MAINTENANCE & PRODUCTION WORKERS	55,136	72.7	70,041	20,754
Mechanics, Automotive	502	.7	683	231
Mechanics, Diesel	165	.2	236	86
Mechanics, Engineering-Equipment	277	.4	353	108
Mechanics, Maintenance	414	.5	508	134
Mechanics, Refrigeration/Air Conditioning	1,261	1.7	1,489	346
All Other Mechanics & Repairers	45	.1	54	13
Truck Drivers	1,842	2.4	2,425	751
Air-Hammer Operators	132	.2	198	86
Asbestos & Insulation Workers	488	.6	566	99
Asphalt Heater Tenders	17	.0	24	8
Blasters	9	.0	14	6
Boilermakers	142	.2	195	71
Bricklayers	1,570	2.1	1,891	452
Cabinetmakers	148	.2	181	46
Carpet Gutters &/or Layers	212	.3	248	47
Carpenters	6,272	8.3	8,124	2,691
Cement Masons	2,124	2.8	2,650	688
Concrete-Mixer Operators	100	.1	120	35
Concrete-Wall Grinder Operators	14	.0	17	4
Concrete Rubbers	61	.1	74	17
Crane, Derrick & Hoist Operators	107	.1	139	44
Delivery & Route Workers	48	.1	58	14
Drillers, Machine	53	.1	65	19
Dry-Wall Applicators	1,044	1.4	1,244	252
Electricians	4,937	6.5	6,326	1,891
Fence Erectors	337	.4	401	103
Floor Sanding Machine Operators	17	.0	20	4

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
Supervisors, Nonworking	1,548	2.0	2,000	639
Form Setters, Metal Road-Form	224	.3	271	68
Furnace Installers & Repairers	48	.1	56	14
Glaziers	387	.5	459	109
Heavy Equipment Operators	3,165	4.2	4,263	1,431
Riggers	9	.0	10	2
Industrial Truck Operators	36	.0	45	13
Inspectors	215	.3	292	113
Lathers	410	.5	492	112
Line Installers-Repairers	123	.2	141	31
Machinists	20	.0	25	7
Maintenance Repairers, General Utility	134	.2	172	52
Metal Fabricators (Exc. Sheet Metal)	267	.4	336	90
Millwrights	231	.3	313	114
Oilers	115	.2	169	69
Painters, Maintenance	1,779	2.3	2,152	603
Paperhangers	34	.0	40	8
Pipelayers	577	.8	821	320
Plasterers	675	.9	802	165
Plumbers &/or Pipefitters	3,394	4.5	4,331	1,295
Reinforcing-Iron Workers	394	.5	510	163
Roofers	1,250	1.7	1,495	312
Sheet Metal Workers	1,689	2.2	2,016	448
Stone Masons	129	.2	161	43
Layout Workers, Structural-Steel	60	.1	74	19
Structural-Steel Workers	675	.9	866	246
Tapers	1,003	1.3	1,221	336
Tile Setters	374	.5	447	104
Welders & Flamecutters	1,146	1.5	1,596	593
Surveyor Helpers	23	.0	28	8
Asphalt-Mixing-Machine Tenders	41	.1	56	20
Asphalt-Plant Drier Operators	17	.0	24	10
Asphalt-Plant Operators	101	.1	150	62
Asphalt Rakers	235	.3	303	99
Mixers, Stone, Clay, Glass & Related Products	33	.0	42	11
Ceiling Tile Installers &/or Floor Layers	190	.3	231	52
Terrazo Workers	59	.1	68	13
Asbestos & Insulation Worker Helpers	27	.0	34	10
Bricklayer Helpers	820	1.1	970	245
Carpenter Helpers	756	1.0	969	286
Cement Mason Helpers	529	.7	646	181
Electrician Helpers	683	.9	827	223
Painter Helpers	112	.1	138	39
Plasterer Helpers	181	.2	214	54
Plumber &/or Pipefitter Helpers	614	.8	740	198
Roofer Helpers	226	.3	275	75
Stone Mason Helpers	80	.1	94	23
Tile Setter Helpers	164	.2	194	49
Cabinetmaker Helpers	34	.0	41	10
All Other Helpers, Skilled Trades	96	.1	122	40
All Other Skilled Craft Workers	359	.5	476	152
All Other Operatives & Semiskilled Workers	927	1.2	1,172	357
All Other Laborers & Unskilled Workers	6,380	8.4	8,348	2,772
TOTAL CLERICAL WORKERS	6,610	8.7	8,432	3,268
Bookkeeping &/or Billing Machine Operators	28	.0	32	9
Computer Operators	71	.1	89	28
Keypunch Operators	30	.0	40	17
All Other Office Machine Operators	2	.0	3	2
Accounting Clerks	400	.5	525	210
Bookkeepers, Hand	1,118	1.5	1,393	505

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

STATEWIDE (CONTD.)

	<u>Estimated 1981 Employment</u>	<u>Percent of Total 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Total Job Openings 1981-1985</u>
Cashiers	59	.1	75	29
File Clerks	57	.1	78	38
General Clerks, Office	1,406	1.9	1,766	679
Mail Clerks	32	.0	44	19
Order Clerks	19	.0	23	9
Payroll &/or Timekeeping Clerks	350	.0	464	182
Personnel Clerks	18	.0	26	13
Procurement Clerks	17	.0	23	8
Receptionists	120	.2	169	83
Secretaries	1,896	2.5	2,448	1,013
Switchboard Operators	28	.0	36	16
Switchboard Operators-Receptionists	68	.1	89	40
Typists	211	.3	274	121
Clerical Supervisors	34	.0	44	15
All Other Office Clerical Workers	46	.1	61	26
Production Clerks &/or Coordinators	59	.1	70	19
Shipping &/or Receiving Clerks	42	.1	55	18
Weighers, Record Keeping	7	.0	8	3
Stock Clerks	433	.6	524	144
Dispatchers	45	.1	55	15
All Other Plant Clerical Workers	14	.0	18	7
TOTAL SALES WORKERS	1,463	1.9	1,852	664
Sales Reps., Agents & Associates-Real Estate	563	.7	753	318
All Other Sales Reps., Agents & Associates	757	1.0	924	295
Sales Clerks (Exc. Cashiers)	143	.2	175	51
TOTAL ALL OCCUPATIONS	75,796	100.0	96,741	30,462

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Nuclear Engineers

MAINTENANCE & PRODUCTION WORKERS

All Other Helpers, Skilled Trades
Paperhanger Helpers
Terrazo Worker Helpers

All Other Skilled Craft Workers
Conduit Mechanics

All Other Operatives & Semiskilled Workers
Blueprint Machine Operators

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

APACHE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	46	68	22	7	29
TOTAL PROFESSIONAL WORKERS	52	81	29	9	38
Accountants & Auditors	8	14	6	1	13
Personnel & Labor Relations Specialists	7	10	3	1	4
All Other Professional Workers	37	57	20	7	27
TOTAL TECHNICAL WORKERS	9	18	9	0	9
TOTAL SERVICE WORKERS	2	2	0	0	0
TOTAL MAINTENANCE & PRODUCTION WORKERS	526	969	443	66	509
Truck Drivers	20	40	20	2	22
Carpenters	16	20	4	2	6
Cement Masons	8	15	7	1	8
Electricians	55	66	11	5	16
Heavy Equipment Operators	72	145	73	8	81
Plumbers &/or Pipefitters	5	8	3	1	4
All Other Helpers, Skilled Trades	25	44	19	3	22
All Other Skilled Craft Workers	73	129	56	8	64
All Other Operatives & Semiskilled Workers	43	79	36	6	42
All Other Laborers & Unskilled Workers	209	423	214	30	244
TOTAL CLERICAL WORKERS	90	143	53	19	72
All Office Machine Operators	2	4	2	0	2
General Clerks, Office	10	12	2	2	4
Payroll &/or Timekeeping Clerks	19	38	19	4	23
Secretaries	13	17	4	3	7
All Other Office Clerical Workers	35	52	17	9	26
Stock Clerks	7	13	6	1	7
All Other Plant Clerical Workers	4	7	3	0	3
TOTAL ALL OCCUPATIONS	725	1,281	556	101	657

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Civil Engineers
Purchasing Agents &/or Buyers
Cost Estimators

TECHNICAL WORKERS

Surveyors
Mechanical Engineering Technicians

MAINTENANCE & PRODUCTION WORKERS

All Other Helpers, Skilled Trades
Bricklayer Helpers
Carpenter Helpers
Cement Mason Helpers
Electrician Helpers
Painter Helpers
Plumber &/or Pipefitter Helpers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Skilled Craft Workers
Mechanics, Automotive
Mechanics, Diesel
Bricklayers
Supervisors, Nonworking
Maintenance Repairers, General Utility
Metal Fabricators
Millwrights

All Other Operatives & Semiskilled Workers
Inspectors
Pipelayers
Reinforcing-Iron Workers
Surveyor Helpers
Asphalt-Mixing-Machine Tenders
Asphalt Rakers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

APACHE COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Laborers & Unskilled Workers
Air-Hammer Operators
Oilers
Painters, Maintenance

CLERICAL WORKERS

All Other Office Clerical Workers
Accounting Clerks
Bookkeepers, Hand

CLERICAL WORKERS (CONTD.)

File Clerks
Personnel Clerks
Procurement Clerks
Switchboard Operators-Receptionists
Typists
Clerical Supervisors

All Other Plant Clerical Workers
Production Clerks &/or Coordinators
Shipping &/or Receiving Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

COCHISE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	73	85	12	11	23
TOTAL PROFESSIONAL WORKERS	14	15	1	2	3
Cost Estimators	9	10	1	2	3
All Other Professional Workers	5	5	0	0	0
TOTAL TECHNICAL WORKERS	3	3	0	0	0
TOTAL SERVICE WORKERS	6	7	1	1	2
Janitors, Porters & Cleaners	6	7	1	1	2
MAINTENANCE & PRODUCTION WORKERS	505	580	75	49	124
Mechanics, Maintenance	7	8	1	1	2
Mechanics, Refrigeration/Air Conditioning	19	21	2	2	4
Truck Drivers	17	19	2	1	3
Bricklayers	19	22	3	2	5
Carpenters	71	85	14	9	23
Cement Masons	21	24	3	1	4
Dry-Wall Applicators	12	14	2	1	3
Electricians	60	66	6	6	12
Fence Erectors	27	30	3	3	6
Supervisors, Nonworking	5	6	1	1	2
Heavy Equipment Operators	13	16	3	1	4
Painters, Maintenance	26	29	3	3	6
Plumbers &/or Pipefitters	13	15	2	1	3
Roofers	13	15	2	1	3
Sheet Metal Workers	17	19	2	1	3
Tapers	8	9	1	1	2
Welders & Flamecutters	4	5	1	0	1
Bricklayer Helpers	6	7	1	1	2
Carpenter Helpers	7	8	1	1	2
Cement Mason Helpers	7	8	1	1	2
Electrician Helpers	15	17	2	2	4
Plumber Helpers	13	15	2	1	3
Roofers Helpers	6	7	1	1	2
All Other Helpers, Skilled Trades	3	3	0	0	0
All Other Skilled Craft Workers	28	31	3	1	4
All Other Semiskilled Workers	30	33	3	2	5
All Other Laborers & Unskilled Workers	38	48	10	4	14
TOTAL CLERICAL WORKERS	81	92	11	17	28
Accounting Clerks	6	7	1	1	2
Bookkeepers, Hand	12	14	2	2	4
General Clerks, Office	21	24	3	5	8
Secretaries	31	35	4	7	11
All Other Office Clerical Workers	4	4	0	1	1
Stock Clerks	7	8	1	1	2
TOTAL SALES WORKERS	22	24	2	3	5
TOTAL ALL OCCUPATIONS	704	806	102	83	185

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Mechanics, Automotive
Cabinetmakers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Drillers, Machine
Furnace Installers & Repairers
Glaziers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

COCHISE COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Line Installers-Repairers
Machinists
Maintenance Repairers, General Utility

All Other Operatives & Semiskilled Workers
Carpet Cutters &/or Layers
Concrete-Wall Grinder Operators
Crane, Derrick & Hoist Operators
Form Setters, Metal Road-Form
Industrial Truck Drivers
Pipelayers
Reinforcing-Iron Workers

SALES WORKERS

Sales Reps., Agents & Associates-Real Estate
All Other Sales Reps., Agents & Associates
Sales Clerks (Exc. Cashiers)

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

COCONINO COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	122	161	39	18	57
TOTAL PROFESSIONAL WORKERS	25	35	10	5	15
All Engineers	1	1	0	0	0
Accountants & Auditors	5	8	3	1	4
Cost Estimators	13	19	6	3	9
All Other Professional Workers	6	7	1	1	2
TOTAL TECHNICAL WORKERS	8	10	2	1	3
Drafters	7	9	2	1	3
All Other Technical Workers	1	1	0	0	0
TOTAL SERVICE WORKERS	51	63	12	9	21
TOTAL MAINTENANCE & PRODUCTION WORKERS	1,175	1,576	401	123	524
Mechanics, Refrigeration/Air Conditioning	14	16	2	1	3
All Other Mechanics & Repairers	20	31	11	1	12
Truck Drivers	76	118	42	6	48
Bricklayers	41	49	8	3	11
Carpenters	111	137	26	15	41
Cement Masons	51	62	11	4	15
Dry-Wall Applicators	17	20	3	1	4
Electricians	36	42	6	4	10
Supervisors, Nonworking	28	37	9	3	12
Heavy Equipment Operators	131	209	78	13	91
Painters, Maintenance	35	42	7	4	11
Plumbers &/or Pipefitters	27	31	4	3	7
Roofers	24	28	4	1	5
Sheet Metal Workers	16	19	3	1	4
Welders & Flamecutters	12	15	3	1	4
Bricklayer Helpers	11	13	2	1	3
Carpenter Helpers	19	23	4	2	6
Cement Mason Helpers	12	14	2	1	3
Plumber &/or Pipefitter Helpers	5	7	2	1	3
All Other Helpers, Skilled Trades	26	30	4	2	6
All Other Skilled Craft Workers	87	104	17	7	24
All Other Operatives & Semiskilled Workers	62	78	16	8	24
All Other Laborers & Unskilled Workers	314	451	137	40	177
TOTAL CLERICAL WORKERS	115	142	27	24	51
Bookkeepers, Hand	35	42	7	7	14
General Clerks, Office	17	20	3	4	7
Payroll &/or Timekeeping Clerks	16	22	6	3	9
Secretaries	28	35	7	7	14
All Other Office Clerical Workers	15	19	4	3	7
All Plant Clerical Workers	4	4	0	0	0
TOTAL SALES WORKERS	10	12	2	2	4
Sales Reps., Agents & Associates-Real Estate	5	6	1	1	2
All Other Sales Reps., Agents & Associates	5	6	1	1	2
TOTAL ALL OCCUPATIONS	1,506	1,999	493	182	675

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

SERVICE WORKERS

Janitors, Porters & Cleaners
Food Service Workers

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Mechanics, Automotive

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

COCONINO COUNTY (CONTD.)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Mechanics, Diesel
Mechanics, Engineering-Equipment
Mechanics, Maintenance

All Other Helpers, Skilled Trades
Electrician Helpers
Roofer Helpers
Stone Mason Helpers
Tile Setter Helpers

All Other Skilled Craft Workers
Cabinetmakers
Drillers, Machine
Glaziers
Line Installers-Repairers
Machinists
Maintenance Repairers, General Utility
Metal Fabricators (Exc. Sheet Metal)

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Pipelayers
Stone Masons
Layout Workers, Structural-Steel
Structural-Steel Workers
Tile Setters
Ceiling Tile Installers &/or Floor Layers

All Other Operatives & Semiskilled Workers
Concrete-Mixer Operators
Delivery & Route Workers
Inspectors
Reinforcing-Iron Workers
Tapers
Asphalt Rakers

All Other Laborers & Unskilled Workers
Air-Hammer Operators,

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

GILA COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	18	19	1	3	4
TOTAL PROFESSIONAL WORKERS	14	16	2	2	4
Cost Estimators	9	11	2	2	4
All Other Professional Workers	5	5	0	0	0
TOTAL TECHNICAL WORKERS	1	1	0	0	0
TOTAL MAINTENANCE & PRODUCTION WORKERS	275	302	27	24	51
Truck Drivers	22	26	4	2	6
Carpenters	34	34	0	4	4
Cement Masons	17	17	0	1	1
Sheet Metal Workers	8	9	1	1	2
All Helpers, Skilled Trades	13	14	1	0	1
All Other Skilled Craft Workers	79	87	8	5	13
All Other Operatives & Semiskilled Workers	44	54	10	4	14
All Other Laborers & Unskilled Workers	58	61	3	7	10
TOTAL CLERICAL WORKERS	22	25	3	5	8
General Clerks	9	10	1	2	3
Secretaries	6	8	2	1	3
All Other Office Clerical Workers	7	7	0	2	2
TOTAL ALL OCCUPATIONS	330	363	33	34	67

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Other Helpers, Skilled Trades
Carpenter Helpers
Cement Mason Helpers
Painter Helpers
Roofers Helpers

All Other Skilled Craft Workers
Mechanics, Diesel
Mechanics, Refrigeration/Air Conditioning
Bricklayers
Electricians
Supervisors, Nonworking
Furnace Installers & Repairers, Hot Air
Millwrights
Plumbers &/or Pipefitters
Structural-Steel Workers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Carpet Cutters &/or Layers
Dry-Wall Applicators
Heavy Equipment Operators
Roofers
Tapers
Plumber &/or Pipefitter Helpers

All Other Laborers & Unskilled Workers
Painters, Maintenance

**ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION**

GRAHAM AND GREENLEE COUNTIES

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	26	31	5	4	9
TOTAL PROFESSIONAL WORKERS	1	1	0	0	0
TOTAL TECHNICAL WORKERS	2	2	0	0	0
TOTAL SERVICE WORKERS	6	7	1	1	2
Janitors, Porters & Cleaners	6	7	1	1	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	270	322	52	28	80
Truck Drivers	12	15	3	1	4
Carpenters	16	19	3	2	5
Cement Masons	11	13	2	1	3
Supervisors, Nonworking	5	6	1	1	2
Heavy Equipment Operators	43	51	8	3	11
Welders & Flamecutters	5	6	1	1	2
Carpenter Helpers	7	9	2	1	3
All Other Helpers, Skilled Trades	13	15	2	2	4
All Other Skilled Craft Workers	100	119	19	8	27
All Other Semiskilled Workers	17	19	2	2	4
All Other Laborers & Unskilled Workers	41	50	9	6	15
TOTAL CLERICAL WORKERS	17	20	3	2	5
Bookkeepers, Hand	4	5	1	1	2
General Clerks, Office	6	7	1	1	2
All Other Office Clerical Workers	6	7	1	0	1
All Plant Clerical Workers	1	1	0	0	0
TOTAL SALES WORKERS	8	9	1	1	2
All Sales Reps., Agents & Associates	8	9	1	1	2
TOTAL ALL OCCUPATIONS	330	392	62	36	98

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Other Helpers, Skilled Trades
 Bricklayer Helpers
 Cement Mason Helpers
 Roofers Helpers

All Other Skilled Craft Workers
 Mechanics, Automotive
 Mechanics, Diesel
 Mechanics, Engineering-Equipment
 Mechanics, Maintenance
 Mechanics, Refrigeration &/or Air Conditioning
 Boilermakers
 Bricklayers
 Cabinetmakers
 Drillers, Machine
 Electricians
 Plumbers &/or Pipefitters
 Sheet Metal Workers
 Structural-Steel Workers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

Tile Setters
Asphalt-Plant Operators
Ceiling Tile Installers &/or Floor Layers
Millwrights

All Other Operatives & Semiskilled Workers
 Carpet Cutters &/or Layers
 Crane, Derrick & Hoist Operators
 Pipelayers
 Roofers
 Asphalt Rakers

CLERICAL WORKERS

All Other Office Clerical Workers
 Payroll &/or Timekeeping Clerks
 Clerical Supervisors
 Secretaries

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

MARICOPA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	5,407	6,994	1,587	812	2,399
TOTAL PROFESSIONAL WORKERS	2,371	3,201	830	373	1,203
Civil Engineers	266	375	109	38	147
Electrical & Electronic Engineers	269	381	112	17	129
Mechanical Engineers	276	390	114	18	132
Safety Engineers	19	27	8	2	10
All Other Engineers	67	97	30	5	35
Systems Analysts, EDP	20	29	9	1	10
Purchasing Agents &/or Buyers	119	151	32	16	48
Accountants & Auditors	301	404	103	47	150
Cost Estimators	962	1,246	284	218	502
Personnel & Labor Relations Specialists	21	29	8	3	11
All Other Professional Workers	51	72	21	8	29
TOTAL TECHNICAL WORKERS	388	515	127	31	158
Computer Programmers	52	74	22	3	25
Drafters	170	213	43	14	57
Electrical & Electronic Technicians	33	37	4	2	6
Surveyors	79	114	35	6	41
All Other Engineering Technicians	44	63	19	5	24
All Other Technicians	10	14	4	1	5
TOTAL SERVICE WORKERS	951	1,340	389	166	555
Janitors, Porters and Cleaners	369	509	140	72	212
Guards & Doorkeepers	156	224	68	10	78
Food Service Workers (Exc. Cashiers)	305	440	135	60	195
Supervisors, Nonworking-Service	24	30	6	3	9
All Other Service Workers	97	137	40	21	61
TOTAL MAINTENANCE & PRODUCTION WORKERS	36,960	46,700	9,740	3,801	13,541
Mechanics, Automotive	363	505	142	32	174
Mechanics, Diesel	103	145	42	10	52
Mechanics, Engineering-Equipment	166	232	66	15	81
Mechanics, Maintenance	313	384	71	30	101
Mechanics, Refrigeration/Air Conditioning	928	1,061	133	86	219
All Other Mechanics & Repairers	35	42	7	3	10
Truck Drivers	1,010	1,351	341	79	420
Air-Hammer Operators	17	24	7	2	9
Asbestos & Insulation Workers	416	473	57	18	75
Boilermakers	130	180	50	17	67
Bricklayers	1,067	1,237	170	88	258
Cabinetmakers	70	89	19	6	25
Carpet Cutters &/or Layers	169	192	23	9	32
Carpenters	4,269	5,671	1,402	573	1,975
Cement Masons	1,278	1,594	316	93	409
Concrete-Mixer Operators	53	60	7	7	14
Concrete-Wall Grinder Operators	6	7	1	0	1
Concrete Rubbers	38	43	5	3	8
Crane, Derrick & Hoist Operators	65	86	21	7	28
Delivery & Route Workers	27	35	8	2	10
Drillers, Machine	13	15	2	2	4
Dry-Wall Applicators	722	822	100	36	136
Electricians	3,982	5,095	1,113	404	1,517
Fence Erectors	206	234	28	24	52
Floor Sanding Machine Operators	16	18	2	1	3
Supervisors, Nonworking	1,022	1,346	324	120	444
Form Setters, Metal Road-Form	151	172	21	14	35
Glaziers	268	305	37	26	63
Heavy Equipment Operators	1,806	2,510	704	168	872

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Riggers	7	8	1	1	2
Industrial Truck Operators	22	31	9	2	11
Lathers	281	319	38	20	58
Maintenance Repairers, General Utility	69	95	26	7	33
Metal Fabricators	155	178	23	12	35
Millwrights	210	286	76	29	105
Oilers	85	123	38	11	49
Painters, Maintenance	1,268	1,488	220	162	382
Paperhangers	28	32	4	2	6
Pipelayers	402	578	176	49	225
Plasterers	477	542	65	27	92
Plumbers &/or Pipefitters	2,645	3,347	702	278	980
Reinforcing-Iron Workers	303	396	93	36	129
Roofers	820	935	115	43	158
Sheet Metal Workers	1,123	1,278	155	79	234
Stone Masons	57	65	8	5	13
Layout Workers, Structural Steel	27	31	4	2	6
Structural-Steel Workers	535	692	157	43	200
Tapers	599	682	83	69	152
Tile Setters	268	304	36	22	58
Welders & Flamecutters	999	1,413	414	123	537
Asphalt-Mixing-Machine Tenders	23	32	9	3	12
Asphalt-Plant Operators	33	46	13	4	17
Asphalt Rakers	169	226	57	20	77
Mixers, Stone, Clay & Related Products	16	18	2	1	3
Ceiling Tile Installers &/or Floor Layers	108	123	15	6	21
Asbestos & Insulation Worker Helpers	20	26	6	2	8
Bricklayer Helpers	619	707	88	71	159
Carpenter Helpers	411	555	144	40	184
Cement Mason Helpers	291	349	58	34	92
Electrician Helpers	441	501	60	50	110
Painter Helpers	77	92	15	9	24
Plasterer Helpers	132	150	18	15	33
Plumber &/or Pipefitter Helpers	446	525	79	52	131
Roofer Helpers	95	109	14	11	25
Stone Mason Helpers	64	73	9	7	16
Tile Setter Helpers	118	134	16	13	29
Cabinet Helpers	9	12	3	4	7
All Other Helpers, Skilled Crafts	28	38	10	3	13
All Other Skilled Craft Workers	383	500	117	34	151
All Other Operatives & Semiskilled Workers	940	1,206	266	114	380
All Other Laborers & Unskilled Workers	3,448	4,527	1,079	411	1,490
TOTAL CLERICAL WORKERS	4,532	5,831	1,299	982	2,281
Bookkeeping &/or Billing Machine Operators	26	30	4	5	9
Computer Operators	43	60	17	5	22
Keypunch Operators	24	34	10	6	16
All Other Office Machine Operators	1	1	0	0	0
Accounting Clerks	302	401	99	63	162
Bookkeepers, Hand	711	888	177	145	322
Cashiers	47	60	13	10	23
File Clerks	44	63	19	13	32
General Clerks, Office	937	1,175	238	211	449
Mail Clerks	28	40	12	5	17
Order Clerks	14	18	4	3	7
Payroll &/or Timekeeping Clerks	225	295	70	43	113
Personnel Clerks	13	19	6	4	10
Procurement Clerks	11	15	4	1	5
Receptionists	105	150	45	30	75
Secretaries	1,293	1,691	398	313	711

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Switchboard Operators	20	27	7	6	13
Switchboard Operators-Receptionists	45	62	17	13	30
Typists	164	217	53	45	98
Clerical Supervisors	22	31	9	3	12
All Other Office Clerical Workers	41	55	14	9	23
Production Clerks &/or Coordinators	32	39	7	4	11
Shipping &/or Receiving Clerks	23	32	9	2	11
Stock Clerks	312	364	52	36	88
Dispatchers	37	46	9	4	13
All Other Plant Clerical Workers	12	18	6	3	9
TOTAL SALES WORKERS	1,046	1,310	270	196	466
Sales Reps., Agents & Associates -Real Estate	409	566	157	94	251
All Other Sales Reps., Agents & Associates	520	611	91	87	178
Sales Clerks	111	133	22	15	37
TOTAL ALL OCCUPATIONS	51,649	65,892	14,242	6,361	20,603

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Engineers
Nuclear Engineers

TECHNICAL WORKERS

All Other Engineering Technicians
Civil Engineering Technicians

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Line Installers - Repairers
Machinists
Terrazo Workers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Asphalt-Heater Tenders
Blasters
Blueprint Machine Operators
Furnace Installers & Repairers, Hot Air
Inspectors
Surveyor Helpers
Asphalt-Plant Drier Operators

CLERICAL WORKERS

All Other Plant Clerical Workers
Weighers, Record Keeping

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

MOHAVE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	149	207	58	23	81
TOTAL PROFESSIONAL WORKERS	15	20	5	3	8
All Engineers	3	3	0	0	0
Accountants & Auditors	5	7	2	1	3
Cost Estimators	7	10	3	2	5
TOTAL TECHNICAL WORKERS	3	3	0	0	0
All Engineering Technicians	3	3	0	0	0
TOTAL SERVICE WORKERS	6	8	2	1	3
Janitors, Porters & Cleaners	5	7	2	1	3
All Other Service Workers	1	1	0	0	0
TOTAL MAINTENANCE & PRODUCTION WORKERS	838	1,193	355	83	438
Mechanics, Automotive	4	7	3	0	3
Mechanics, Refrigeration/Air Conditioning	30	38	8	3	11
All Other Mechanics & Repairers	10	17	7	1	8
Truck Drivers	77	130	53	6	59
Asbestos & Insulation Workers	14	17	3	1	4
Bricklayers	12	16	4	1	5
Carpenters	100	142	42	14	56
Cement Masons	45	59	14	3	17
Crane, Derrick & Hoist Operators	15	24	9	2	11
Dry-Wall Applicators	22	28	6	1	7
Electricians	17	22	5	2	7
Supervisors, Nonworking	16	24	8	2	10
Heavy Equipment Operators	83	132	49	8	57
Lathers	7	9	2	1	3
Painters, Maintenance	25	33	8	3	11
Plasterers	32	40	8	2	10
Plumbers &/or Pipefitters	63	87	24	7	31
Roofers	22	28	6	1	7
Sheet Metal Workers	23	29	6	2	8
Tapers	11	14	3	1	4
Carpenter Helpers	5	7	2	0	2
Cement Mason Helpers	14	19	5	2	7
Electrician Helpers	4	5	1	0	1
Plasterer Helpers	6	7	1	1	2
All Other Helpers, Skilled Trades	10	14	4	0	4
All Other Skilled Craft Workers	42	61	19	4	23
All Other Operatives & Semiskilled Workers	69	105	36	8	44
All Other Laborers & Unskilled Workers	60	79	19	7	26
TOTAL CLERICAL WORKERS	105	146	41	23	64
Bookkeepers, Hand	24	32	8	5	13
General Clerks, Office	34	47	13	8	21
Payroll &/or Timekeeping Clerks	5	7	2	1	3
Secretaries	30	41	11	7	18
All Other Office Clerical Workers	9	16	7	2	9
All Plant Clerical Workers	3	3	0	0	0
TOTAL SALES WORKERS	18	25	7	4	11
Sales Reps., Agents & Associates-Real Estate	12	17	5	3	8
All Other Sales Reps., Agents & Associates	5	6	1	1	2
All Other Sales Workers	1	2	1	0	1
TOTAL ALL OCCUPATIONS	1,134	1,502	468	137	605

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

MOHAVE COUNTY (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

- All Other Mechanics & Repairers
 - Mechanics, Diesel
 - Mechanics, Engineering-Equipment
 - Mechanics, Maintenance
- All Other Helpers, Skilled Trades
 - Bricklayer Helpers
 - Plumber &/or Pipefitter Helpers
 - Roofer Helpers
- All Other Skilled Craft Workers
 - Cabinetmakers
 - Glaziers
 - Riggers
 - Line Installers-Repairers
 - Metal Fabricators (Exc. Sheet Metal)
 - Tile Setters
 - Welders & Flamecutters
 - Asphalt-Plant Operators

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

- All Other Operatives & Semiskilled Workers
 - Carpet Cutters &/or Layers
 - Fence Erectors
 - Pipelayers
 - Surveyor Helpers
 - Asphalt-Mixing-Machine Tenders
 - Asphalt-Plant Drier Operators
 - Asphalt Rakers

CLERICAL WORKERS

- All Other Office Clerical Workers
 - Accounting Clerks
 - Typists
- All Other Plant Clerical Workers
 - Production Clerks &/or Coordinators
 - Shipping &/or Receiving Clerks
 - Stock Clerks

**ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION**

NAVAJO COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	81	106	25	12	37
TOTAL PROFESSIONAL WORKERS	9	12	3	1	4
All Engineers	4	7	3	0	3
Cost Estimators	3	3	0	1	1
All Other Professional Workers	2	2	0	0	0
TOTAL MAINTENANCE & PRODUCTION WORKERS	599	845	246	62	308
Mechanics, Automotive	9	14	5	1	6
Mechanics, Maintenance	8	9	1	1	2
All Other Mechanics & Repairers	10	15	5	1	6
Truck Drivers	75	111	36	6	42
Carpenters	55	66	11	7	18
Cement Masons	38	43	5	3	8
Electricians	29	40	11	3	14
Supervisors, Nonworking	14	21	7	2	9
Heavy Equipment Operators	34	52	18	3	21
Carpenter Helpers	13	16	3	1	4
Cement Mason Helpers	19	22	3	2	5
All Other Helpers, Skilled Trades	7	8	1	0	1
All Other Skilled Craft Workers	68	99	31	6	37
All Other Operatives & Semiskilled Workers	67	97	30	7	37
All Other Laborers & Unskilled Workers	153	232	79	19	98
TOTAL CLERICAL WORKERS	37	48	11	9	20
Bookkeepers, Hand	5	6	1	1	2
General Clerks, Office	17	23	6	4	10
Secretaries	10	12	2	2	4
All Other Office Clerical Workers	5	7	2	2	4
TOTAL SALES WORKERS	4	4	0	0	0
All Sales Reps., Agents & Associates	4	4	0	0	0
TOTAL ALL OCCUPATIONS	730	1,015	285	84	369

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

 All Other Mechanics & Repairers
 Mechanics, Diesel
 Mechanics, Engineering-Equipment
 Mechanics, Refrigeration/Air Conditioning

 All Other Helpers, Skilled Trades
 Bricklayer Helpers
 Electrician Helpers
 Plumber &/or Pipefitter Helpers

 All Other Skilled Craft Workers
 Bricklayers
 Glaziers
 Plumbers &/or Pipefitters
 Sheet Metal Workers
 Asphalt-Plant Operators

 All Other Operatives & Semiskilled Workers
 Asbestos & Insulation Workers
 Blasters
 Inspectors

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

 Pipelayers
 Roofers
 Welders & Flamecutters
 Asphalt-Plant Drier Operators

 All Other Laborers & Unskilled Workers
 Air-Hammer Operators

CLERICAL WORKERS

 All Other Office Clerical Workers
 Payroll &/or Timekeeping Clerks
 Typists

SALES WORKERS

 All Other Sales Reps., Agents & Associates
 Sales Reps., Agents & Associates-Real Estate

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

PIMA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	1,551	1,939	388	231	619
TOTAL PROFESSIONAL WORKERS	410	500	90	78	168
Civil Engineers	29	30	1	4	5
Electrical & Electronic Engineers	4	5	1	0	1
Mechanical Engineers	15	18	3	1	4
All Other Engineers	1	1	0	0	0
Purchasing Agents &/or Buyers	28	33	5	4	9
Accountants & Auditors	67	82	15	10	25
Cost Estimators	257	321	64	58	122
All Other Professional Workers	9	10	1	1	2
TOTAL TECHNICAL WORKERS	114	136	22	8	30
Computer Programmers	5	5	0	0	0
Drafters	53	63	10	4	14
Electrical & Electronic Technicians	21	29	8	1	9
All Other Engineering Technicians	32	35	3	3	6
All Other Technicians	3	4	1	0	1
TOTAL SERVICE WORKERS	107	128	21	19	40
Janitors, Porters & Cleaners	84	104	20	16	36
Guards & Doorkeepers	7	7	0	0	0
All Other Service Workers	16	17	1	3	4
TOTAL MAINTENANCE & PRODUCTION WORKERS	10,335	12,930	2,603	1,043	3,646
Mechanics, Automotive	82	84	2	7	9
Mechanics, Diesel	9	11	2	1	3
Mechanics, Engineering-Equipment	86	82	0	7	7
Mechanics, Maintenance	54	69	15	5	20
Mechanics, Refrigeration/Air Conditioning	191	263	72	19	91
All Other Mechanics & Repairers	1	1	0	0	0
Truck Drivers	384	407	23	28	51
Air-Hammer Operators	21	22	1	3	4
Asbestos & Insulation Workers	39	54	15	2	17
Bricklayers	351	468	117	30	147
Cabinetmakers	45	52	7	4	11
Carpet Cutters &/or Layers	27	37	10	1	11
Carpenters	1,076	1,302	226	141	367
Cement Masons	492	619	127	36	163
Concrete-Mixer Operators	27	35	8	4	12
Concrete Rubbers	20	28	8	2	10
Crane, Derrick & Hoist Operators	17	17	0	2	2
Delivery & Route Workers	20	23	3	1	4
Drillers, Machine	16	22	6	2	8
Dry-Wall Applicators	207	285	78	11	89
Electricians	579	790	211	60	271
Fence Erectors	70	97	27	8	35
Supervisors, Nonworking	347	412	65	40	105
Form Setters, Road-Form	68	94	26	7	33
Glaziers	70	97	27	7	34
Heavy Equipment Operators	603	615	12	51	63
Industrial Truck Operators	10	9	0	1	1
Lathers	101	139	38	8	46
Line Installers-Repairers	90	96	6	5	11
Maintenance Repairers, General Utility	35	41	6	3	9
Metal Fabricators	75	103	28	6	34
Painters, Maintenance	325	437	112	43	155
Paperhangers	4	6	2	0	2
Pipelayers	66	63	0	7	7
Plasterers	125	172	47	7	54
Plumbers &/or Pipefitters	486	661	175	52	227
Reinforcing-Iron Workers	42	52	10	5	15

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

PIMA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Roofers	275	378	103	15	118
Sheet Metal Workers	372	508	136	28	164
Stone Masons	57	79	22	5	27
Layout Workers, Structural-Steel	22	30	8	2	10
Structural-Steel Workers	84	107	23	7	30
Tapers	323	444	121	39	160
Tile Setters	88	121	33	8	41
Welders & Flamecutters	61	69	8	7	15
Asphalt Plant Operators	11	14	3	1	4
Asphalt Rakers	43	45	2	5	7
Mixers, Stone, Clay, Glass & Related Products	17	23	6	1	7
Ceiling Tile Installers &/or Floor Layers	61	84	23	4	27
Bricklayer Helpers	142	191	49	17	66
Carpenter Helpers	220	261	41	21	62
Cement Mason Helpers	117	150	33	14	47
Electrician Helpers	202	277	75	24	99
Painter Helpers	20	28	8	2	10
Plasterer Helpers	30	41	11	4	15
Plumber &/or Pipefitter Helpers	93	123	30	11	41
Roofer Helpers	75	101	26	9	35
Stone Mason Helpers	12	17	5	1	6
Tile Setter Helpers	31	43	12	4	16
All Other Helpers, Skilled Trades	44	48	4	5	9
All Other Skilled Craft Workers	39	51	12	4	16
All Other Operatives & Semiskilled Workers	172	207	35	20	55
All Other Laborers & Unskilled Workers	1,463	1,725	262	169	431
TOTAL CLERICAL WORKERS	1,260	1,554	294	264	558
Computer Operators	24	24	0	3	3
Keypunch Operators	5	5	0	1	1
All Other Office Machine Operators	1	1	0	0	0
Accounting Clerks	65	75	10	13	23
Bookkeepers, Hand	243	308	65	50	115
File Clerks	10	11	1	3	4
General Clerks, Office	271	346	75	61	136
Payroll &/or Timekeeping Clerks	61	72	11	11	22
Procurement Clerks	4	5	1	0	1
Receptionists	13	16	3	4	7
Secretaries	357	449	92	85	177
Switchboard Operators-Receptionists	15	16	1	4	5
Typists	27	32	5	7	12
Clerical Supervisors	8	8	0	1	1
All Other Office Clerical Workers	26	28	2	6	8
Production Clerks &/or Coordinators	25	27	2	3	5
Shipping &/or Receiving Clerks	10	11	1	1	2
Stock Clerks	78	101	23	9	32
Dispatchers	8	9	1	1	2
All Other Plant Clerical Workers	9	10	1	1	2
SALES WORKERS	302	393	91	57	148
Sales Reps., Agents & Associates-Real Estate	99	117	18	22	40
All Other Sales Reps., Agents & Associates	186	253	67	33	100
Sales Clerks (Exc. Cashiers)	17	23	6	2	8
TOTAL ALL OCCUPATIONS	14,079	17,580	3,509	1,700	5,209

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

PIMA COUNTY (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Systems Analysts, EDP
Personnel & Labor Relations Specialists

SERVICE WORKERS

All Other Service Workers
Food Service Workers (Exc. Cashiers)
Supervisors, Nonworking-Service

CLERICAL WORKERS

All Other Office Clerical Workers
Cashiers
Mail Clerks
Order Clerks
Personnel Clerks
Switchboard Operators

All Other Plant Clerical Workers
Weighers, Record Keeping

TECHNICAL WORKERS

All Other Engineering Technicians
Surveyors
Mechanical Engineering Technicians
Civil Engineering Technicians

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Furnace Installers & Repairers
Machinists
Millwrights
Terrazzo Workers

All Other Operatives & Semiskilled Workers
Asphalt-Heater Tenders
Floor Sanding Machine Operators
Inspectors
Surveyor Helpers
Asphalt-Mixing-Machine Tenders
Asphalt-Plant Drier Operators

All Other Laborers & Unskilled Workers
Oilers

**ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION**

PINAL COUNTY

	<u>Estimated 1981 Employment</u>	<u>Projected 1985 Employment</u>	<u>Job Openings Due to Growth 1981-1985</u>	<u>Job Openings Due to Separations 1981-1985</u>	<u>Total Job Openings 1981-1985</u>
TOTAL MANAGERS & OFFICERS	85	105	20	13	33
TOTAL PROFESSIONAL WORKERS	16	19	3	3	6
Cost Estimators	7	8	1	2	3
All Other Professional Workers	9	11	2	1	3
TOTAL TECHNICAL WORKERS	5	6	1	0	1
TOTAL MAINTENANCE & PRODUCTION WORKERS	324	392	68	33	101
Mechanics, Refrigeration/Air Conditioning	7	8	1	1	2
Carpenters	103	128	25	14	39
Cement Masons	15	18	3	1	4
Electricians	14	16	2	1	3
Heavy Equipment Operators	14	21	7	1	8
Plumbers &/or Pipefitters	13	15	2	1	3
Sheet Metal Workers	17	19	2	1	3
Electrician Helpers	4	5	1	0	1
Plumber &/or Pipefitter Helpers	6	7	1	1	2
All Other Helpers, Skilled Trades	12	14	2	1	3
All Other Skilled Craft Workers	16	19	3	0	3
All Other Operatives & Semiskilled Workers	33	39	6	2	8
All Other Laborers & Unskilled Workers	70	83	13	9	22
TOTAL CLERICAL WORKERS	42	52	10	9	19
Bookkeepers, Hand	7	8	1	1	2
General Clerks, Office	8	10	2	2	4
Secretaries	27	34	7	6	13
TOTAL SALES WORKERS	2	3	1	0	1
TOTAL ALL OCCUPATIONS	474	577	103	58	161

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Other Helpers, Skilled Trades
Cement Mason Helpers
Painter Helpers
Plasterer Helpers

All Other Skilled Craft Workers
Mechanics, Automotive
Mechanics, Maintenance
Drillers, Machine
Glaziers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Truck Drivers
Dry-Wall Applicators
Fence Erectors
Pipelayers
Roofers
Tapers

All Other Laborers & Unskilled Workers
Air-Hammer Operators
Painters, Maintenance

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

SANTA CRUZ COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	27	32	5	4	9
TOTAL PROFESSIONAL WORKERS	2	2	0	0	0
TOTAL TECHNICAL WORKERS	3	4	1	0	1
TOTAL MAINTENANCE & PRODUCTION WORKERS	201	237	36	19	55
Carpenters	22	27	5	3	8
Heavy Equipment Operators	12	14	2	1	3
Sheet Metal Workers	9	10	1	1	2
All Helpers, Skilled Trades	28	32	4	2	6
All Other Skilled Craft Workers	49	57	8	4	12
All Other Operatives & Semiskilled Workers	21	24	3	1	4
All Other Laborers & Unskilled Workers	60	73	13	7	20
TOTAL CLERICAL WORKERS	19	22	3	4	7
Bookkeepers, Hand	7	8	1	1	2
General Clerks, Office	7	8	1	2	3
All Other Office Clerical Workers	5	6	1	1	2
TOTAL ALL OCCUPATIONS	252	297	45	27	72

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Helpers, Skilled Trades
 Carpenter Helpers
 Cement Mason Helpers
 Cabinetmaker Helpers

All Other Skilled Craft Workers
 Mechanics, Refrigeration/Air Conditioning
 Cabinetmakers
 Cement Masons
 Electricians
 Supervisors, Nonworking
 Glaziers
 Plumbers &/or Pipefitters

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
 Roofers

All Other Laborers & Unskilled Workers
 Painters, Maintenance

CLERICAL WORKERS

All Other Office Clerical Workers
 Secretaries

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

YAVAPAI COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	126	158	32	19	51
TOTAL PROFESSIONAL WORKERS	13	15	2	3	5
Accountants & Auditors	4	5	1	1	2
Cost Estimators	8	9	1	2	3
All Other Professional Workers	1	1	0	0	0
TOTAL TECHNICAL WORKERS	3	4	1	0	1
TOTAL SERVICE WORKERS	4	5	1	1	2
Janitors, Porters & Cleaners	4	5	1	1	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	1,036	1,285	249	104	353
Mechanics, Refrigeration/Air Conditioning	10	11	1	1	2
All Other Mechanics & Repairers	14	18	4	0	4
Truck Drivers	42	60	18	3	21
Bricklayers	37	43	6	3	9
Carpenters	169	209	40	22	62
Cement Masons	37	43	6	3	9
Drillers, Machine	4	5	1	1	2
Dry-Wall Applicators	35	41	6	2	8
Electricians	56	65	9	6	15
Supervisors, Nonworking	42	58	16	5	21
Glaziers	14	16	2	1	3
Heavy Equipment Operators	99	142	43	9	52
Painters, Maintenance	19	22	3	2	5
Plumbers &/or Pipefitters	38	44	6	4	10
Roofers	24	28	4	1	5
Sheet Metal Workers	38	44	6	3	9
Tapers	30	35	5	3	8
Bricklayers	21	24	3	2	5
Carpenter Helpers	36	44	8	3	11
Cement Mason Helpers	26	30	4	3	7
Plumber &/or Pipefitter Helpers	14	16	2	2	4
All Other Helpers, Skilled Trades	29	33	4	2	6
All Other Skilled Craft Workers	37	42	5	3	8
All Other Operatives & Semiskilled Workers	26	29	3	3	6
All Other Laborers & Unskilled Workers	139	183	44	17	61
TOTAL CLERICAL WORKERS	102	125	23	23	46
All Office Machine Operators	1	1	0	0	0
Accounting Clerks	5	6	1	1	2
Bookkeepers, Hand	19	22	3	4	7
General Clerks, Office	23	28	5	5	10
Payroll &/or Timekeeping Clerks	3	4	1	1	2
Secretaries	47	60	13	11	24
All Other Office Clerical Workers	2	2	0	1	1
All Plant Clerical Workers	2	2	0	0	0
TOTAL SALES WORKERS	7	8	1	1	2
TOTAL ALL OCCUPATIONS	1,291	1,600	309	151	460

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

YAVAPAI COUNTY

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Mechanics, Automotive
Mechanics, Diesel
Mechanics, Maintenance

All Other Skilled Craft Workers
Cabinetmakers
Furnace Installers & Repairers
Lathers
Plasterers
Stone Masons
Tile Setters
Welders & Flamecutters
Terrazzo Workers

All Other Operatives & Semiskilled Workers
Asbestos & Insulation Workers
Crane, Derrick & Hoist Operators
Pipelayers
Asphalt Rakers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Helpers, Skilled Trades
Asbestos & Insulation Worker Helpers
Electrician Helpers
Painter Helpers
Plasterer Helpers
Roofer Helpers
Tile Setter Helpers
Cabinetmaker Helpers
Terrazzo Worker Helpers

SALES WORKERS

Sales Reps., Agents & Associates-Real Estate
All Other Sales Reps., Agents & Associates

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

YUMA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	168	205	37	25	62
TOTAL PROFESSIONAL WORKERS	53	67	14	9	23
Civil Engineers	10	13	3	1	4
Purchasing Agents &/or Buyers	5	7	2	1	3
Accountants & Auditors	8	11	3	1	4
Cost Estimators	28	34	6	6	12
All Other Professional Workers	2	2	0	0	0
TOTAL TECHNICAL WORKERS	27	36	9	2	11
Drafters	14	18	4	1	5
All Other Engineering Technicians	13	18	5	1	6
TOTAL SERVICE WORKERS	14	18	4	1	5
Janitors, Porters & Cleaners	7	8	1	1	2
All Other Service Workers	7	10	3	0	3
TOTAL MAINTENANCE & PRODUCTION WORKERS	2,092	2,694	602	215	817
Mechanics, Maintenance	23	26	3	2	5
Mechanics, Refrigeration & Air Conditioning	45	52	7	4	11
All Other Mechanics & Repairers	30	42	12	2	14
Truck Drivers	105	146	41	8	49
Bricklayers	17	19	2	1	3
Carpenters	230	284	54	30	84
Cement Masons	105	135	30	8	38
Concrete-Mixer Operators	19	24	5	3	8
Dry-Wall Applicators	15	18	3	1	4
Electricians	66	76	10	6	16
Supervisors, Nonworking	57	76	19	7	26
Heavy Equipment Operators	239	332	93	22	115
Lathers	12	14	2	1	3
Machinists	12	16	4	1	5
Metal Fabricators	8	9	1	1	2
Painters, Maintenance	53	65	12	7	19
Plasterers	38	45	7	2	9
Plumbers &/or Pipefitters	58	70	12	6	18
Reinforcing-Iron Workers	20	27	7	2	9
Roofers	37	43	6	2	8
Sheet Metal Workers	58	72	14	4	18
Tapers	14	16	2	2	4
Tile Setters	10	12	2	1	3
Welders & Flamecutters	51	67	16	6	22
Bricklayer Helpers	6	7	1	1	2
Carpenter Helpers	29	35	6	3	9
Cement Mason Helpers	31	40	9	4	13
Plumber &/or Pipefitter Helpers	28	37	9	3	12
Roofer Helpers	18	21	3	2	5
All Other Helpers, Skilled Trades	31	35	4	3	7
All Other Skilled Craft Workers	77	96	19	7	26
All Other Operatives & Semiskilled Workers	71	92	21	5	26
All Other Laborers & Unskilled Workers	479	645	166	58	224
TOTAL CLERICAL WORKERS	188	231	43	38	81
All Office Machine Operators	4	5	1	0	1
Bookkeepers, Hand	44	51	7	9	16
General Clerks, Office	46	56	10	10	20
Payroll &/or Timekeeping Clerks	9	12	3	2	5
Secretaries	47	56	9	11	20

ESTIMATED EMPLOYMENT AND JOB OPENINGS
CONSTRUCTION

YUMA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
All Other Office Clerical Workers	12	15	3	3	6
Stock Clerks	22	30	8	3	11
All Other Plant Clerical Workers	4	6	2	0	2
TOTAL SALES WORKERS	50	61	11	10	21
All Sales Reps., Agents & Associates	38	46	8	8	16
All Other Sales Workers	12	15	3	2	5
TOTAL ALL OCCUPATIONS	2,592	3,312	720	300	1,020

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

TECHNICAL WORKERS

All Other Engineering Technicians
Surveyors

SERVICE WORKERS

All Other Service Workers
Guards & Doorkeepers

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Mechanics, Automotive
Mechanics, Diesel
Mechanics, Engineering-Equipment

All Other Helpers, Skilled Trades
Asbestos & Insulation Worker Helpers
Electrician Helpers
Painter Helpers
Paperhanger Helpers
Plasterer Helpers
Tile Setter Helpers

All Other Skilled Craft Workers
Cabinetmakers
Concrete Rubbers
Conduit Mechanics
Drillers, Machine
Glaziers
Maintenance Repairers, General Utility
Millwrights
Paper Hangers
Stone Masons
Layout Workers, Structural-Steel
Structural-Steel Workers
Ceiling Tile Installers

MAINTENANCE & PRODUCTION WORKERS (CONTD.)

All Other Operatives & Semiskilled Workers
Asbestos & Insulation Workers
Asphalt-Heater Tenders
Concrete-Wall Grinder Operators
Crane, Derrick & Hoist Operators
Fence Erectors
Form Setters, Metal-Road Form
Industrial Truck Operators
Pipelayers
Surveyor Helpers
Asphalt-Mixing Machine Tenders
Asphalt Rakers

All Other Laborers & Unskilled Workers
Oilers

CLERICAL WORKERS

All Other Office Clerical Workers
Accounting Clerks
File Clerks
Procurement Clerks
Receptionists
Switchboard Operators-Receptionists
Typists

All Other Plant Clerical Workers
Stock Clerks

SALES WORKERS

All Sales Reps., Agents & Associates
Sales Reps., Agents & Associates-Real Estate

All Other Sales Workers
Sales Clerks (Exc. Cashiers)

METHODOLOGY

Limitations of the Data

The projection methods do not account for cyclical, seasonal, and such factors as the sudden opening and closing of large establishments. Caution is advised in the use of employment forecast data for industries with limited employment - especially in the smaller counties. The establishment or closing of a single firm could have a profound effect on a county's employment and demand.

The occupational data in this publication refer only to employees who earned a wage or salary. Self-employed and unpaid family workers are not represented in the statistics.

Sample Selection and Response Rate

Occupational estimates for the construction industry were developed from a survey of employers throughout the state. Employers who were asked to participate in the survey were selected from a master employer file of firms doing business in Arizona, using standardized sampling techniques. A sample of establishments employing 4-99 employees and all establishments having 100 or more employees were surveyed. The entire sample was composed of 2,679 firms with a usable response rate of 82 percent. Firms responding accounted for 85 percent of the industry's employment.

Employment Projections

Construction employment was projected using regression analysis and was adjusted to reflect recent industry developments. The 1985 occupational employment was calculated by applying staffing pattern ratios (as determined by the survey) to the industry projections.

Job Openings

The difference between 1981 and 1985 employment for each occupation represents expected job openings due to growth. Job openings due to separation from the labor force were calculated by interpolating 1970 and 1985 separation rates for each occupation¹ and applying them to the occupational employment projections. "Total job openings" is the sum of openings due to growth and separations. These data do not include openings resulting from turnover, i.e., openings created when a worker changes jobs.

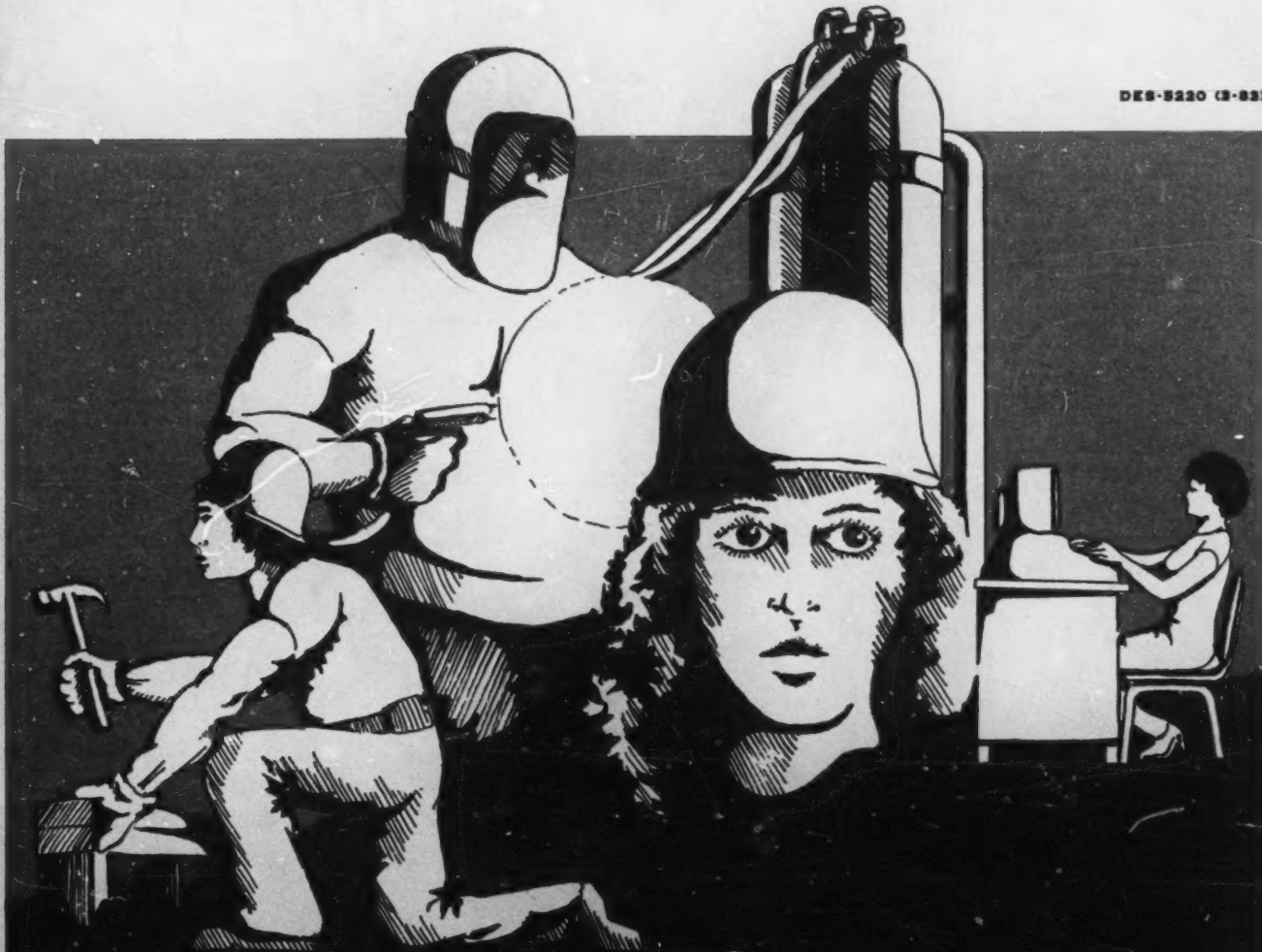
¹"Tomorrow's Manpower Needs," Supplement No. 4, BLS, 1974, pp. 11-16.

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Finance, Insurance and Real Estate

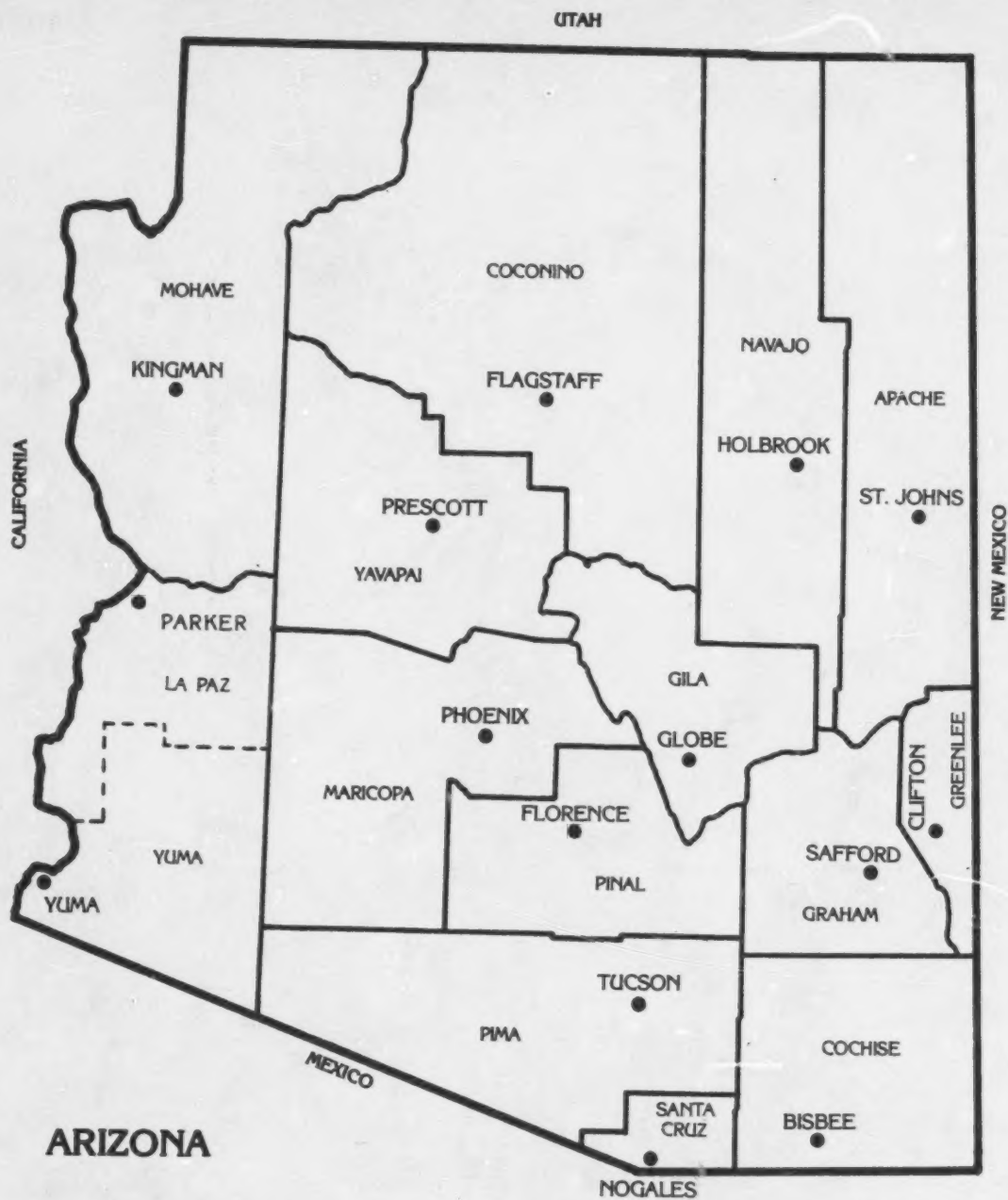
March 1983

DES-5220 (3-83)



ARIZONA OCCUPATIONAL PROFILE

A Labor Market Information Publication of the Arizona Department of Economic Security



OCCUPATIONAL PROFILES

The value of current and accurate occupational employment information has long been recognized by job seekers, public and private administrators, and those involved in training, recruiting, and counseling. A major source of this information in Arizona is the Occupational Employment Statistics (OES) Program - a cooperative effort between Arizona and the U.S. Bureau of Labor Statistics.

This Occupational Profile is one in a series of publications produced from information developed by the Occupational Employment Statistics survey. These publications represent one of several occupational employment information delivery systems incorporating OES survey data. The survey is used to collect employment data, by county, for over 1,000 occupations in Arizona. From these surveys, which require the cooperation of the Arizona business community, current employment in the various occupations is determined, and from this an occupational outlook is formulated. The Occupational Profiles contain the survey findings and examine, individually, the industries of Arizona.

Surveyed industries include:

- Mining
- Construction
- Manufacturing
- Transportation, Communications, and Public Utilities
- Trade
- Finance, Insurance, and Real Estate
- Services
- Government

For further information, or to comment on any aspect of this program, please write to the address on the back cover.

INDUSTRY INFORMATION

INDUSTRY DESCRIPTION

Occupational employment estimates for Arizona's finance, insurance, and real estate (FIRE) industries are provided in this publication for the state and counties.

Finance establishments include banks and trust companies, credit agencies other than banks, holding and investment companies, brokers and dealers in securities and commodity contracts, and security and commodity exchanges.

Insurance includes carriers of all types of insurance, and insurance agents and brokers.

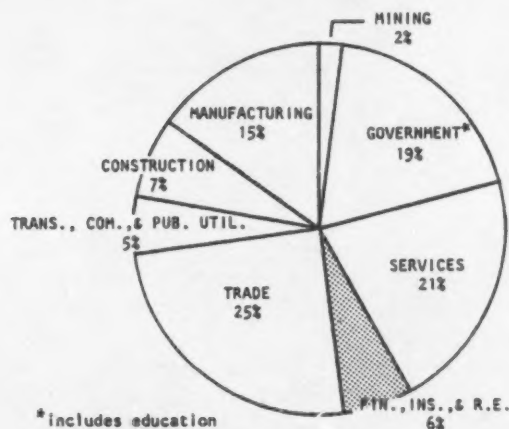
Real estate covers real estate operators, and owners and lessors of real property, as well as buyers, sellers, developers, agents, and brokers. Also covered are those firms regularly engaged in any combination of real estate, insurance, loans, or the practice of law.

A detailed description of the types of firms surveyed is found in the Standard Industrial Classification Manual¹ under codes 60 through 67.

INDUSTRY CHARACTERISTICS

Slightly more than 61,000 of Arizona's 1.2 million workers in 1981 were employed by finance, insurance and real estate firms. Nearly half of these workers are employed by financial institutions - most in national and state banks that are members of the Federal Reserve System. The balance is employed by state chartered banks that are not members of the System; trust and holding companies; and various other banking-related businesses.

FIGURE 1: ARIZONA NONAGRICULTURAL EMPLOYMENT
BY INDUSTRY 1981



¹Office of Management and Budget, *Standard Industrial Classification Manual*, 1972 Edition, pp. 277-293.

Ranking second to financial institutions is employment in insurance companies. The largest portion of these 16,600 insurance workers are employed as independent insurance agents and brokers - a group which comprises almost one-third of insurance industry employment. About 29 percent of these workers are employed by establishments which deal with fire, marine, and casualty insurance. Employment in life insurance and

FIGURE 2: FINANCE, INSURANCE, AND REAL ESTATE
EMPLOYMENT BY ACTIVITY
MAY 1981



title insurance companies are the next largest groups with 20 and 15 percent of insurance industry employment, respectively. Nearly all the remaining employees are engaged in accident and health insurance activities.

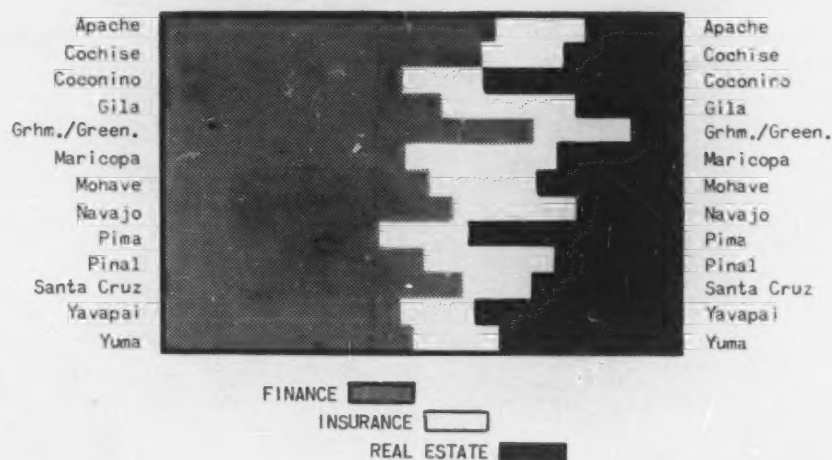
The real estate industry claimed employment of nearly 15,000 individuals in 1981. The majority (nearly 90 percent) is divided between firms operating and leasing real property (except developers) and those whose primary functions are selling, buying, renting, managing, and appraising real estate for others. Most of the balance of those working in real estate are employed by subdividers and developers. The reader is reminded that these data include only workers earning a wage or salary, and excludes the large number who are self-employed or commissioned salespersons.

Employment in finance, insurance, and real estate is concentrated in Maricopa County. Although it has 55 percent of Arizona's population, Maricopa County accounts for over 77 percent of the industry's employment. The tendency for localization of employment to the Phoenix metropolitan area is greatest in the insurance industry - evidenced by Maricopa County's 85 percent share of employment. Pima County is the only sector outside Phoenix to have more than its relative share of real estate employment when compared to that county's population.

The disproportion of employment is even more pronounced when the state's two metropolitan areas are combined. Although three-fourths of Arizona's residents live in Maricopa and Pima counties, more than 90 percent of the industry's employees work in these two counties. The centralization of employment is not surprising since both banks and insurance companies tend to locate their home and regional offices in metropolitan areas.

National banks claim the largest share of employment in the nonmetropolitan counties, followed by employment in real estate firms. As evidenced by the following table, Yavapai, Coconino, and Yuma counties have particularly large real estate sectors as compared to other rural counties. The relatively limited insurance industry employment in the state's nonmetropolitan counties is, for the most part, that of title insurance firms.

FIGURE 3: PERCENT DISTRIBUTION OF FINANCE, INSURANCE, AND REAL ESTATE EMPLOYMENT IN ARIZONA'S COUNTIES 1981



While population and economic conditions are primary determinants of industry employment, other factors can have major influence. As indicated in Figure 4, Pinal County ranks third in population yet represents less than one percent of the state's FIRE employment. The location of Pinal County between Arizona's two largest metropolitan areas suppresses industry employment growth as many administrative functions are more economically performed in Maricopa and Pima counties. On the other hand, the remoteness of Mohave and Yuma counties provides much of the impetus for comparatively high employment in these areas.

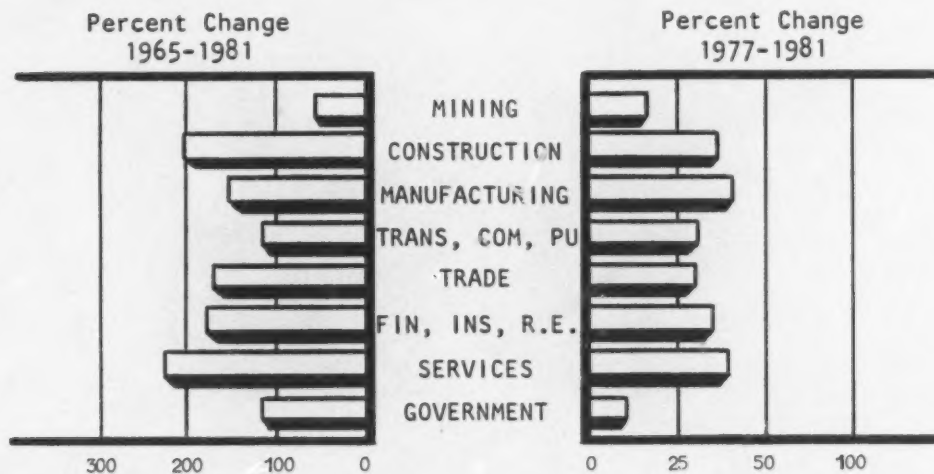
FIGURE 4: COUNTIES' SHARE OF STATE EMPLOYMENT IN FINANCE, INSURANCE AND REAL ESTATE 1981

	Employment 1981	Employment Share	Population Share
Apache	125	.2%	1.9%
Cochise	550	.9	3.2
Coconino	725	1.2	2.9
Gila	225	.4	1.3
Graham & Greenlee	175	.3	1.2
Maricopa	47,300	77.4	55.4
Mohave	650	1.0	2.0
Navajo	300	.5	2.5
Pima	8,800	14.4	19.7
Pinal	525	.8	3.3
Santa Cruz	250	.4	.8
Yavapai	725	1.2	2.5
Yuma	800	1.3	3.3
TOTAL	61,150	100.0%	100.0%

INDUSTRY TRENDS

Although moderating in recent years, employment in finance, insurance, and real estate has, over the past decade and a half, shown consistent and relatively rapid expansion. Ranking behind services and construction, FIRE employment growth was led by the real estate sector which has quadrupled its employment since 1965. Much of this growth occurred between 1970 and 1972 when the number of real estate workers nearly doubled. Periodically interrupting this growth trend, however, economic downturns take a particularly heavy toll on real estate employment. During the 1974-75 recession, for example, nearly all those laid off in FIRE were real estate employees.

FIGURE 5: EMPLOYMENT GROWTH IN ARIZONA'S INDUSTRIES



Employment in finance and insurance has also increased rapidly, with firms in both sectors more than doubling their work forces since 1965. Of the finance firms, employment in credit unions is the least stable as it fluctuates with the economy. Although the number of insurance carriers wavered slightly during the late sixties, and employment of agents and brokers dipped in 1981, the two groups combined have shown consistent growth over the past fifteen years.

Recently victimized by a depressed economy, a disconsolate construction industry, and unrelenting high interest rates, Arizona's FIRE employment will rebound with renewed economic activity - expanding nearly 13 percent through 1985. In general, FIRE employment is characterized by consistent and predictable growth as dictated by the needs of an expanding population and economy. Predicted to top 3.1 million by 1985, Arizona's population will increase 12 percent over its 1981 level. Although not duplicating expansion rates of the recent past, anticipated population increases bode well for the industry.

Although expected to gain the largest number of new FIRE employees, Maricopa County will be outpaced by the industry's growth in rural areas. Over the next five years, FIRE employment in the balance of state will grow nearly 20 percent - compared to about 11 percent in Maricopa and Pima counties.

Expected to have significant impact on the industry is recent legislation deregulating many banking and financial services. According to F. Lee Jacquette, Vice Chairman of Arizona Bank, "the finance industry is in a period of vast homogenization. Services traditionally offered by only banks are now being provided by brokerage houses and retail stores." By

FIGURE 6: ASSETS & DEPOSITS FOR ARIZONA BANKS
JUNE 1981

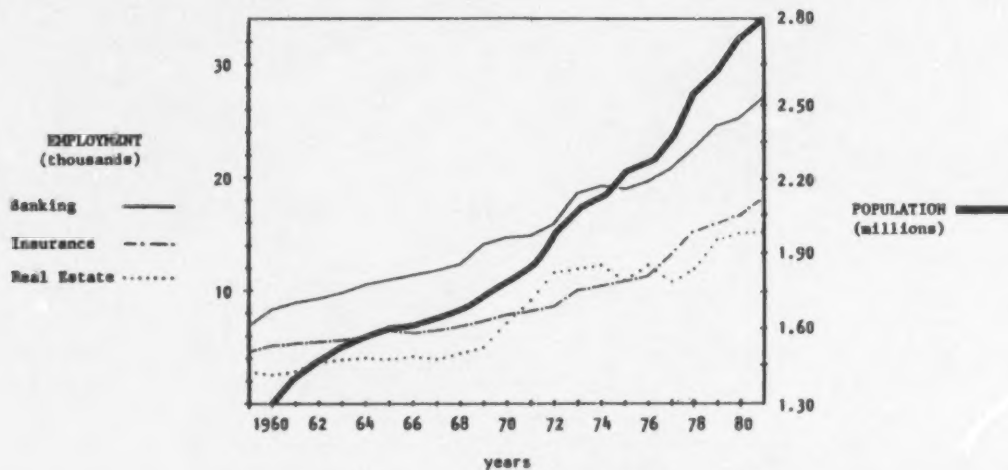
	Head Office Location	No. of Branch Offices	Total Assets (000's)	Total Deposits (000's)
Total State & National Banks		590	\$14,135,050	\$11,749,849
Total National Banks		367	9,782,235	8,104,528
Valley Natl. Bank of Arizona	Phoenix	211	5,944,337	4,952,891
First Interstate Bank of Arizona	Phoenix	152	2,821,857	3,137,118
First American Natl. Bank	Chandler	1	16,041	14,519
Total State Banks		223	4,352,815	3,645,321
Arizona Bank	Phoenix	92	2,164,308	1,793,791
United Bank of Arizona	Phoenix	31	738,764	635,342
Great Western Bank & Trust	Phoenix	34	520,398	446,771
Continental Bank	Phoenix	9	281,325	248,769
Century Bank	Phoenix	10	188,521	129,068
Thunderbird Bank	Phoenix	10	121,782	109,726
Union Bank	Tucson	4	97,626	78,543
The State Bank	Lake Havasu City	3	46,045	42,844
The Bank of Scottsdale	Scottsdale	1	37,560	28,823
Copper State Bank	Apache Junction	1	23,840	21,812
American Bank of Commerce	Phoenix	1	22,553	17,709
Mission Bank	Mesa		17,312	15,619
Citizens Union Bank	Tempe		16,956	13,623
The Bank of Northern Arizona	Flagstaff	1	13,707	11,210
Community Bank of Arizona	Wickenburg	1	13,665	12,163
Bank of Paradise Valley	Phoenix	1	12,383	7,831
The Stockman's Bank	Kingman		6,861	5,707
Central Arizona Bank	Chandler		6,635	5,003
Territorial Bank	Tucson		5,803	3,334
South-Western Bank	Tucson		5,308	5,006
The Bank of Prescott	Prescott		3,632	2,579

the same token, the deregulation of banking is opening up a wider range of services that have not been traditionally part of the industry. Legislation passed in 1982 will permit savings and loans to offer investment advice and sell stocks, bonds, and mutual funds. Charles W. Candland, Vice President and Employee Relations Director of Western Savings observes that "only during the last two or three years have savings and loans been allowed to offer checking and new credit-related services. By 1985, it will be difficult to relate savings and loans to what they were in 1975 because of the deregulation that is occurring."

Between 1978 and 1981, state and national banks opened more than 100 new branch offices in Arizona - most in the Phoenix metropolitan area. The trend in the future, according to Mr. Jacquette (Arizona Bank), will be "toward fewer full-service branches and more small branches with less

staff and heavy use of automatic tellers." Electronic equipment will enable banks to set up more branches in such places as store fronts and will ultimately enable consumers to do their banking at home.

FIGURE 7: ARIZONA EMPLOYMENT AND POPULATION GROWTH



Real estate employment growth in the years ahead will in no way duplicate that of the past 10 to 15 years. Slower growth will be compounded by the expansion of services provided by the finance sector as they usurp services once provided solely by real estate firms. The industry's employment growth rate in the years ahead, therefore, should not be interpreted as mirroring the level of real estate-related activity. In part, it will be reflecting the transfer of some traditionally-held responsibilities. Employment growth will stem primarily from increased demand for homes and rental units. Shifts in the age distribution of the population over the next decade will result in a larger number of young adults with careers and family responsibilities. This is the most geographically mobile group in our society and the one that makes the bulk of home purchases. A modest 8 percent employment increase can be expected for Arizona in the real estate industry between 1981 and 1985. With a predicted 12 percent increase, the "balance of state" area will outpace both Pima and Maricopa counties with 10 and 7 percent increases, respectively.

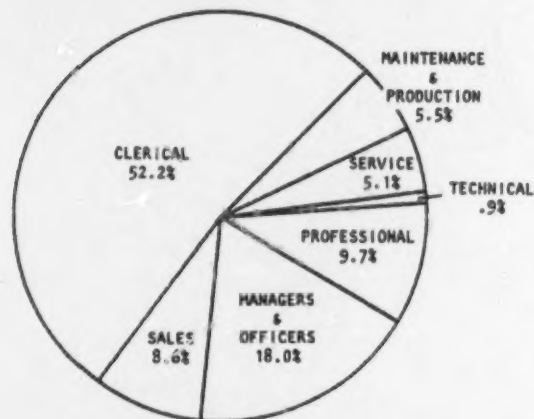
Not as vulnerable to the vagaries of the economy is employment in the insurance industry. Continued employment growth in the industry, although not matching the average 6 percent expansion since 1977, will increase with insurance sales volume. Volume of life and health insurance sales should increase rapidly over the next decade as more workers enter the 25-54 age group. Employment of agents and brokers may not keep pace with the rising level of insurance sales because more policies will be sold to groups and by mail. The trend to multiline agents, and the use of computers to take over routine clerical tasks, will further suppress the rate of employment growth.

OCCUPATIONAL INFORMATION

OCCUPATIONAL ANALYSIS

One of every two employees in the FIRE industries is a clerical worker. Banks and credit agencies are especially dominated by clericals, with 5,300 tellers accounting for the largest portion of their employment. Representing 69 percent of the workers in banks and credit agencies,

FIGURE 8: OCCUPATIONS IN THE FINANCE,
INSURANCE, AND REAL ESTATE INDUSTRY
MAY 1981



clerical workers also prevail in insurance and real estate (39 percent) and other financial services such as securities and investment offices (37 percent). Following tellers, which were reported by the banking industry only, are those clerical occupations common to many or all FIRE industries. Employment of secretaries (3,900), general clerks (3,500), supervisors (1,750), and stenographers (1,250) all contributed to the prominence of the clerical category.

Most frequently reported, however, and the occupation with the greatest employment is "managers and officers." This somewhat broad occupation, which is a primary occupational category in and of itself, includes corporate officers, office managers, sales managers and others concerned with policy making, planning, organizing, staffing, directing and/or supervising the activities of the company or establishment work force and support personnel. Also included are those who engage, to some degree, in the same activities as the workers they supervise. Managers and officers numbered nearly 11,000 in 1981 according to the survey.

The third largest occupational classification in FIRE is the professional category - constituting 10 percent of the industry's employment. Most numerous in this class are underwriters, accountants and auditors, credit analysts and electronic data processing (EDP) systems analysts.

FIGURE 9: OCCUPATIONS WITH THE GREATEST EMPLOYMENT IN
FINANCE, INSURANCE, AND REAL ESTATE

	Employment 1981	Job Openings 1981-1985
Managers & Officers	10,968	2,908
Tellers	5,287	1,973
Secretaries	3,901	1,390
General Clerks	3,516	1,206
Sales Reps., Agts. & Associates, Insurance	2,055	485
Clerical Supervisors	1,752	448
Sales Reps., Agts. & Associates, Real Estate	1,681	539
Maintenance Repairers, General Utility	1,382	255
Stenographers	1,266	407
Typists	1,060	410
New-Accounts Tellers	960	407
Gardeners & Groundskeepers	934	271
Bookkeepers, Hand	807	253
Underwriters (Exc. Life Ins. Sales Agents)	791	227
Keypunch Operators	771	264
Collectors	721	209
Janitors, Porters & Cleaners	704	202
File Clerks	688	275
Loan Closers	662	238
Credit Clerks	649	230
Claims Adjusters	639	146
Accountants & Auditors	634	167
Credit Analysts	577	206
Guards & Doorkeepers	571	88
Claims Clerks	540	178
Raters	479	162
Claims Examiners	463	158
Food Service Workers (Exc. Cashiers)	459	134
Sales Reps., Agents & Associates, Securities	436	116
Systems Analysts, EDP	428	73
Maids	404	135
Receptionists	369	138
Computer Operators	362	84
Peripheral EDP Equipment Operators	350	127
Switchboard Operator-Receptionists	341	128

Regionally, there is variation in the industry's statewide staffing pattern. The Phoenix metropolitan area (Maricopa County) employs a somewhat larger share of professional workers; while in Tucson (Pima County), we find a greater share of sales workers. A relatively larger insurance industry component and a preponderance of EDP systems analysts in Maricopa County contributes to the large professional workers category. The prominence of Pima County's sales workers reflects that area's greater share of workers earning a wage or salary in the real estate industry.

Employment in each of the seven major occupational classes will continue to expand - although at different rates. Increasing their share of employment will be professional and technical personnel; managers and officers; and sales workers - primarily at the expense of clerical and service workers. More rapid growth of staff-support personnel, as opposed to front-line occupations, will contribute to this trend. Increased employment of accountants, lawyers and compliance officers to satisfy regulatory and reporting requirements is contributing to the expanding staff-support network. For all occupations in the FIRE industry, it is anticipated that nearly 20,000 job openings will transpire between 1981 and 1985 as a result of industry growth and workers who leave the labor force. Many additional openings will result from labor turnover as workers leave one job to take another.

Characterized by relatively high separation and turnover rates, clerical occupations will offer job seekers the most opportunities. Openings resulting from labor force separations and industry growth alone will provide nearly 3,000 annual job openings through 1985. Turnover, which is often the largest source of openings, will result in many more opportunities.

As the dominant occupation in the finance industry, tellers will increase their numbers approximately 500 annually through 1985. Although increased use of mechanical and electronic equipment may eliminate some duties and speed other work, total employment of tellers is not likely to be affected. The occupation is further benefited by less sensitivity to economic downturns - thereby providing a greater degree of employment stability.

On the industry's horizon are changes that will likely include banking by phone, and in retail stores and other areas outside the bank. Along with increased mechanization of banking activities, these changes will require some workers to have different skills than in the past to compliment those needed for customer-oriented services.

Ranking a somewhat distant second and third to tellers is the projected number of job openings for secretaries and general clerks. Current strong demand for secretaries will continue, especially for those with good typing and shorthand skills, word processing experience, organizational

ability and initiative. Affirmative action pressures, changing company policies and the role that women perceive themselves occupying in the business world have all contributed to the lack of an adequate supply of skilled secretaries. Especially valuable in the marketplace are secretaries with strong communication skills - both written and verbal.

Maintaining systematic and timely records of accounts and transactions is the primary responsibility of Arizona's estimated 3,500 general clerks in the FIRE industry. Because of the large size of this group of workers, many job opportunities will result as workers transfer to other occupations or leave the labor force. The number of general clerks, however, will not increase as rapidly as industry employment because of the increasing use of computers to process data more accurately, rapidly and economically.



OCCUPATIONAL STRUCTURE

The following thirteen tables provide employment estimates and projected employment and job openings for the counties and the state. Graham and Greenlee counties have been combined due to their close proximity, similar economies, and size. A table for La Paz County is not included as the survey was conducted prior to this county's creation.

When using the data, please note the following:

- 1) The data reflect full and part-time wage and salary employment only, and do not include self-employed or unpaid family workers.
- 2) Total job openings represent the number of openings due to growth of the industry and separations from the labor force. They do not account for labor turnover, i.e., openings created when a worker changes jobs, leaving the job to be filled by someone else. These vacancies are often the largest source of job openings.
- 3) The projection technique does not possess the degree of accuracy that may be implied by small employment and demand figures.
- 4) To eliminate the possible disclosure of confidential employer information, occupations have been added to the appropriate "all other" or residual category if: less than three firms reported a single occupation; one firm reported more than 50 percent of the occupational estimate; two firms combined reported more than 75 percent of the occupational estimate. In certain cases, releases have been obtained from large employers to waive the confidentiality criteria.

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

STATEWIDE

	Estimated 1981 Employment	Percent of Total 1991 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	10,968	18.0	12,295	2,908
TOTAL PROFESSIONAL WORKERS	5,938	9.7	6,667	1,620
Engineers (Inc. Sales Engineers)	71	.1	78	12
Actuaries	19	.0	21	5
Financial Analysts	136	.2	153	32
All Other Natural & Math Scientists	8	.0	8	0
Economists	14	.0	16	4
Systems Analysts, EDP	428	.7	482	73
Purchasing Agents &/or Buyers	55	.1	61	13
Accountants & Auditors	634	1.0	706	167
Landscape Architects	3	.0	3	0
Budget Analysts	20	.0	22	5
Credit Analysts, Chief	100	.2	113	35
Credit Analysts	577	.9	657	206
Investigators, Insurance	62	.1	69	14
Lawyers	61	.1	68	14
Nurses, Professional	80	.1	87	22
Paralegal Personnel	6	.0	7	2
Personnel & Labor Relations Specialists	186	.3	209	45
Public Relations Practitioners	66	.1	74	18
Safety Inspectors	79	.1	88	20
Title Examiners &/or Abstractors	289	.5	329	103
Appraisers, Real Estate	185	.3	206	60
Broker's Floor Reps., Securities Traders/Specialists	299	.5	338	80
Special Agents, Insurance	240	.4	269	57
Claims Examiners	177	.3	198	40
Underwriters (Exc. Life Ins. Sales Agents)	791	1.3	878	227
All Other Professional Workers	1,352	2.2	1,527	366
TOTAL TECHNICAL WORKERS	551	.9	615	113
Computer Operators	269	.4	303	48
Engineering Technicians	35	.1	38	6
Drafters	8	.0	9	2
All Other Engineering Technicians	3	.0	3	0
Licensed Practical Nurses	52	.1	55	16
All Other Technical Workers	184	.3	206	41
TOTAL SERVICE WORKERS	3,086	5.1	3,398	831
Janitors, Porters & Cleaners	86	.1	100	30
Maids	404	.7	441	135
All Other Janitors, Porters & Cleaners	618	1.0	678	172
Guards & Doorkeepers	571	.9	626	88
Food Service Workers (Exc. Cashiers)	459	.8	510	134
Supervisors, Nonworking-Service	148	.2	166	35
Lifeguards	18	.0	20	5
All Other Service Workers	782	1.3	857	232
TOTAL MAINTENANCE & PRODUCTION WORKERS	3,365	5.5	3,685	746
Mechanics, Automotive	9	.0	10	2
Mechanics, Maintenance	22	.0	25	5
All Other Mechanics & Repairers	33	.1	37	7
Truck Drivers	8	.0	9	2
Carpenters	69	.1	76	16
Delivery & Route Workers	15	.0	16	2
Electricians	4	.0	4	0
Supervisors, Nonworking	172	.3	190	37
Maintenance Repairers, General Utility	1,382	2.3	1,510	255
Trades Helpers	60	.1	66	13
Painters, Maintenance	116	.2	126	25
Press Operators &/or Plate Printers	6	.0	7	1
Gardeners & Groundskeepers	934	1.5	1,023	271

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
Chauffeurs	18	.0	20	5
All Other Skilled Craft Workers	116	.2	127	21
All Other Operatives & Semiskilled Workers	104	.2	115	23
All Other Laborers & Unskilled Workers	297	.5	324	61
TOTAL CLERICAL WORKERS	31,876	52.2	36,015	10,924
Bookkeeping &/or Billing Machine Operators	87	.1	97	26
Computer Operators	362	.6	406	84
Keypunch Operators	771	1.3	866	264
Peripheral EDP Equipment Operators	350	.6	393	127
Proof Machine Operators	233	.4	264	75
Duplicating Machine Operators	59	.1	66	21
Coin Machine Operators &/or Currency Sorters	9	.0	10	4
All Other Office Machine Operators	228	.4	257	95
Stenographers	173	.3	194	58
Accounting Clerks	1,266	2.1	1,422	407
Actuarial Clerks	11	.0	12	3
Bookkeepers, Hand	807	1.3	900	253
Brokerage Clerks	75	.1	85	26
Cancellation Clerks	16	.0	18	5
Adjustment Clerks	239	.4	270	83
Cashiers	134	.2	150	44
Checking Clerks, Bank Records	108	.2	122	38
Claims Adjusters	639	1.0	715	146
Claims Clerks	540	.9	601	178
Collectors	721	1.2	821	209
Correspondence Clerks	63	.1	71	22
Credit Reporters	48	.1	54	16
File Clerks	688	1.1	772	275
Insurance Clerks	89	.1	101	31
General Clerks	3,516	5.8	3,956	1,206
Securities Cashiers, Exchange	41	.1	46	14
Mail Clerks	276	.5	311	83
Margin Clerks	22	.0	25	8
Messengers, Bank	46	.1	52	12
New-Accounts Tellers	960	1.6	1,099	407
Order Clerks	58	.1	65	19
Payroll &/or Timekeeping Clerks	101	.2	113	30
Personnel Clerks	97	.2	109	39
Policy-Change Clerks	209	.3	233	69
Procurement Clerks	24	.0	27	6
Purchase, Sales &/or Securities Orders Clerks	16	.0	18	5
Raters	479	.8	537	162
Real Estate Clerks	140	.2	153	43
Receptionists	369	.6	410	138
Safe-Deposit Clerks	50	.1	57	18
Secretaries	3,901	6.4	4,388	1,390
Statement Clerks	116	.2	134	43
Statistical Clerks	37	.1	42	13
Switchboard Operators	108	.2	122	43
Switchboard Operators-Receptionists	341	.6	379	128
Messengers	196	.3	222	51
Tellers	5,287	8.7	6,072	1,973
Title Searchers	169	.3	194	62
Transfer Clerks	11	.0	12	3
Transit Clerks	22	.0	25	7
Typists	1,060	1.7	1,193	410
Worksheet Clerks	144	.2	163	50
Clerical Supervisors	1,752	2.9	1,984	448
Insurance Checkers	235	.4	262	53
Credit Clerks	649	1.1	737	230
Mortgage Closing Clerks	145	.2	165	52
Claims Examiners	463	.8	520	158

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

STATEWIDE (CONTD.)

	Estimated 1981 Employment	Percent of Total 1981 Employment	Projected 1985 Employment	Total Job Openings 1981-1985
Sorting Clerks, Banks	88	.1	100	31
Loan Closers	662	1.1	755	238
All Other Office Clerical Workers	2,140	3.5	2,413	740
Production Clerks &/or Coordinators	31	.1	34	6
Shipping &/or Receiving Clerks	84	.1	93	17
Stock Clerks	82	.1	92	19
All Other Plant Clerical Workers	33	.1	36	10
TOTAL SALES WORKERS	5,236	8.6	5,822	1,428
Business Brokers	35	.1	38	10
Real Estate Brokers	213	.3	233	66
Sales Reps., Agents & Associates, Financial Services	314	.5	354	93
Sales Reps., Agents & Associates, Real Estate	1,681	2.8	1,858	539
Sales Reps., Agents & Associates, Securities	436	.7	492	116
Sales Reps., Agents & Associates, Insurance	2,055	3.4	2,297	485
Broker-&Market Operators, Commodities	27	.0	30	7
All Other Sales Reps., Agents & Associates	472	.8	517	122
All Other Sales Workers	3	.0	3	0
TOTAL ALL OCCUPATIONS	61,020	100.0	68,497	18,570

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Natural & Math Scientists
Statisticians
Physical Scientists

All Other Professional Workers
Market Research Analysts
Appraisers (Exc. Art & Real Estate)
Architects (Exc. Landscape Architects)
Hospital Insurance Representatives
Law Clerks
Physicians &/or Surgeons
Building Inspectors, Fire Insurance

TECHNICAL WORKERS

All Other Technical Workers
Mathematical Technicians
Technical Assistants, Library

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Mechanics, Refrigeration/Air Conditioning

All Other Skilled Craft Workers
Compositors &/or Typesetters
Plumbers &/or Pipefitters
Stationary Engineers

All Other Operatives & Semiskilled Workers
Inspectors

CLERICAL WORKERS

All Other Office Machine Operators
Addressing Machine Operators
Inserting &/or Labeling Machine Operators

All Other Office Clerical Workers
Dividend Clerks
Trade Recorders

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

APACHE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	33	39	6	5	11
TOTAL PROFESSIONAL WORKERS	4	4	0	0	0
TOTAL SERVICE WORKERS	8	9	1	1	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	1	1	0	0	0
TOTAL CLERICAL WORKERS	73	86	13	16	29
General Clerks	5	6	1	1	2
New-Accounts Tellers	5	6	1	1	2
Secretaries	15	18	3	4	7
Tellers	30	36	6	7	13
Clerical Supervisors	6	7	1	1	2
All Other Office Clerical Workers	12	13	1	2	3
TOTAL SALES WORKERS	1	1	0	0	0
TOTAL ALL OCCUPATIONS	120	140	20	22	42

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

SERVICE WORKERS

Janitors, Porters & Cleaners

CLERICAL WORKERS

All Other Office Clerical Workers
Collectors

CLERICAL WORKERS (CONTD.)

Raters
Real Estate Clerks
Receptionists
Typists
Credit Clerks
Loan Closers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

COCHISE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	115	135	20	17	37
TOTAL PROFESSIONAL WORKERS	27	31	4	4	8
TOTAL SERVICE WORKERS	10	11	1	2	3
All Janitors, Porters & Cleaners	10	11	1	2	3
TOTAL MAINTENANCE & PRODUCTION WORKERS	40	45	5	6	11
All Mechanics & Repairers	1	1	0	0	0
Maintenance Repairers, General Utility	7	8	1	1	2
Gardeners & Groundskeepers	8	9	1	2	3
All Helpers, Skilled Trades	1	1	0	0	0
All Other Skilled Craft Workers	2	2	0	0	0
All Other Operatives & Semiskilled Workers	6	7	1	1	2
All Other Laborers & Unskilled Workers	15	17	2	2	4
TOTAL CLERICAL WORKERS	306	363	57	65	122
All Office Machine Operators	2	2	0	0	0
Bookkeepers, Hand	4	5	1	1	2
Collectors	14	17	3	2	5
General Clerks	38	45	7	8	15
Receptionists	3	4	1	1	2
Secretaries	44	51	7	10	17
Tellers	134	161	27	30	57
Typists	5	6	1	1	2
Clerical Supervisors	12	14	2	2	4
Mortgage Closing Clerks	3	4	1	1	2
Loan Closers	10	12	2	2	4
All Other Office Clerical Workers	37	42	5	7	12
TOTAL SALES WORKERS	43	48	5	7	12
Sales Reps., Agents & Associates, Real Estate	24	27	3	5	8
Sales Reps., Agents & Associates, Insurance	15	17	2	2	4
All Other Sales Workers	4	4	0	0	0
TOTAL ALL OCCUPATIONS	541	633	92	101	193

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

Accountants & Auditors
Credit Analysts, Chief
Credit Analysts
Title Examiners &/or Abstractors
Special Agents, Insurance

SERVICE WORKERS

All Janitors, Porters & Cleaners
Maids

CLERICAL WORKERS

All Other Office Clerical Workers
Accounting Clerks
Cashiers
Claims Clerks
File Clerks
New-Accounts Tellers
Payroll &/or Timekeeping Clerks
Raters
Real Estate Clerks
Statement Clerks
Switchboard Operators
Title Searchers
Insurance Checkers
Credit Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

COCONINO COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	143	191	48	22	70
TOTAL PROFESSIONAL WORKERS	27	36	9	4	13
TOTAL SERVICE WORKERS	63	90	27	11	38
All Janitors, Porters & Cleaners	23	32	9	5	14
Maids	5	7	2	1	3
All Other Service Workers	35	51	16	5	21
TOTAL MAINTENANCE & PRODUCTION WORKERS	36	52	16	5	21
All Skilled Craft Workers	20	29	9	2	11
All Laborers & Unskilled Workers	16	23	7	3	10
TOTAL CLERICAL WORKERS	316	407	91	70	161
All Office Machine Operators	1	1	0	0	0
Accounting Clerks	5	7	2	1	3
Bookkeepers Hand	11	15	4	2	6
General Clerks	40	51	11	9	20
New-Accounts Tellers	24	30	6	7	13
Secretaries	53	71	18	13	31
Tellers	114	143	29	26	55
Title Searchers	11	15	4	3	7
Typists	5	7	2	1	3
Clerical Supervisors	15	19	4	2	6
Credit Clerks	7	9	2	2	4
Loan Closers	11	14	3	2	5
All Other Office Clerical Workers	19	25	6	2	8
TOTAL SALES WORKERS	61	87	26	12	38
Sales Reps., Agents & Associates, Real Estate	49	71	22	11	33
Sales Reps., Agents & Associates, Insurance	11	15	4	1	5
All Other Sales Workers	1	1	0	0	0
TOTAL ALL OCCUPATIONS	646	863	217	124	341

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

Accountants & Auditors
Credit Analysts
Title Examiners &/or Abstractors
Special Agents, Insurance
Claims Examiners
Underwriters (Exc. Life Ins. Sales Agents)

SERVICE WORKERS

All Other Service Workers
Guards & Doorkeepers
Food Service Workers (Exc. Cashiers)
Supervisors, Nonworking-Service

MAINTENANCE & PRODUCTION WORKERS

All Skilled Craft Workers
Supervisors, Nonworking
Maintenance Repairers, General Utility
All Laborers & Unskilled Workers
Gardeners & Groundskeepers

CLERICAL WORKERS

All Other Office Clerical Workers
Claims Adjusters
Claims Clerks
Collectors
Policy-Change Clerks
Real Estate Clerks
Receptionists
Switchboard Operators
Messengers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

GILA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985*
TOTAL MANAGERS & OFFICERS	53	63	10	8	18
TOTAL PROFESSIONAL WORKERS	24	27	3	2	5
TOTAL SERVICE WORKERS	3	3	0	0	0
TOTAL MAINTENANCE & PRODUCTION WORKERS	15	17	2	1	3
Maintenance Repairers, General Utility	7	8	1	1	2
All Skilled Craft Workers	1	1	0	0	0
All Operatives & Semiskilled Workers	5	6	1	0	1
All Laborers & Unskilled Workers	2	2	0	0	0
TOTAL CLERICAL WORKERS	126	147	21	25	46
All Office Machine Operators	1	1	0	0	0
Accounting Clerks	4	4	0	1	1
Bookkeepers, Hand	3	3	0	1	1
General Clerks	15	18	3	3	6
New-Accounts Tellers	10	12	2	3	5
Secretaries	18	21	3	4	7
Tellers	46	56	10	10	20
Clerical Supervisors	3	4	1	0	1
All Other Office Clerical Workers	26	28	2	3	5
TOTAL SALES WORKERS	8	9	1	1	2
Sales Reps., Agents & Associates, Real Estate	5	6	1	1	2
All Other Sales Workers	3	3	0	0	0
TOTAL ALL OCCUPATIONS	229	266	37	37	74

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

Accountants & Auditors
Credit Analysts
Special Agents, Insurance
Claims Examiners

MAINTENANCE & PRODUCTION WORKERS

All Operatives & Semiskilled Workers
Delivery & Route Workers

CLERICAL WORKERS

All Other Office Clerical Workers
Claims Adjusters
Claims Clerks
Collectors
Policy-Change Clerks
Real Estate Clerks
Receptionists
Title Searchers
Typists
Insurance Checkers
Credit Clerks
Loan Closers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

GRAHAM AND GREENLEE COUNTIES

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	37	44	7	6	13
TOTAL PROFESSIONAL WORKERS	10	10	0	1	1
TOTAL SERVICE WORKERS	4	5	1	1	2
TOTAL CLERICAL WORKERS	98	117	19	18	37
Collectors	7	8	1	1	2
General Clerks	15	18	3	3	6
Secretaries	11	13	2	2	4
Tellers	48	59	11	11	22
Loan Closers	4	5	1	1	2
All Other Office Clerical Workers	13	14	1	0	1
TOTAL SALES WORKERS	2	2	0	0	0
TOTAL ALL OCCUPATIONS	151	178	27	26	53

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Accountants & Auditors
Credit Analysts
Title Examiners &/or Abstractors
Special Agents, Insurance

SERVICE WORKERS

Janitors, Porters & Cleaners

CLERICAL WORKERS

All Other Office Clerical Workers
Accounting Clerks
Bookkeepers, Hand
Claims Adjusters
New-Accounts Tellers
Receptionists
Title Searchers
Typists
Clerical Supervisors
Credit Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

MARICOPA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	8,170	9,079	909	1,175	2,084
TOTAL PROFESSIONAL WORKERS	5,053	5,652	599	744	1,343
Engineers (Inc. Sales Engineers)	66	73	7	5	12
Actuaries	19	21	2	3	5
Financial Analysts	123	139	16	13	29
All Other Natural & Math Scientists	5	5	0	0	0
Economists	14	16	2	2	4
Systems Analysts, EDP	426	480	54	19	73
Purchasing Agents &/or Buyers	48	53	5	6	11
Accountants & Auditors	546	606	60	82	142
Landscape Architects	3	3	0	0	0
Budget Analysts	20	22	2	3	5
Credit Analysts, Chief	95	107	12	21	33
Credit Analysts	487	551	64	106	170
Investigators, Insurance	60	67	7	7	14
Lawyers	59	66	7	6	13
Nurses, Professional	80	87	7	15	22
Paralegal Personnel	6	7	1	1	2
Personnel & Labor Relations Specialists	177	198	21	21	42
Public Relations Practitioners	56	63	7	9	16
Safety Inspectors	79	88	9	11	20
Title Examiners &/or Abstractors	194	219	25	42	67
Appraisers, Real Estate	104	116	12	22	34
Broker's Floor Reps., Securities Traders/ Specialists	255	288	33	35	68
Special Agents, Insurance	223	249	26	26	52
Claims Examiners	139	155	16	15	31
Underwriters (Exc. Life Ins. Sales Agents)	698	774	76	123	199
All Other Professional Workers	1,071	1,199	128	151	279
TOTAL TECHNICAL WORKERS	531	592	61	46	107
Computer Programmers	259	292	33	13	46
Engineering Technicians	34	37	3	3	6
Drafters	5	5	0	0	0
All Other Engineering Technicians	3	3	0	0	0
Licensed Practical Nurses	52	56	4	12	16
All Other Technical Workers	178	199	21	18	39
TOTAL SERVICE WORKERS	2,449	2,671	222	413	635
Janitors, Porters & Cleaners	34	38	4	6	10
Maids	326	353	27	79	106
All Other Janitors, Porters & Cleaners	404	438	34	73	107
Guards & Doorkeepers	479	521	42	28	70
Food Service Workers (Exc. Cashiers)	367	399	32	66	98
Supervisors, Nonworking-Service	83	93	10	9	19
All Other Service Workers	756	829	73	152	225
TOTAL MAINTENANCE & PRODUCTION WORKERS	2,464	2,674	210	305	515
Mechanics, Automotive	5	6	1	0	1
Mechanics, Maintenance	20	22	2	2	4
All Other Mechanics & Repairers	26	29	3	2	5
Carpenters	47	51	4	6	10
Delivery & Route Workers	10	11	1	1	2
Electricians	4	4	0	0	0
Supervisors, Nonworking	127	138	11	14	25
Maintenance Repairers	1,025	1,111	86	94	180
Trades Helpers	39	42	3	4	7
Painters, Maintenance	101	109	8	13	21
Press Operators &/or Plate Printers	6	7	1	0	1
Gardeners & Groundskeepers	647	700	53	125	178
Chauffeurs	18	20	2	3	5

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
All Other Skilled Craft Workers	91	99	8	8	16
All Other Operatives & Semiskilled Workers	68	75	7	7	14
All Other Laborers & Unskilled Workers	230	250	20	26	46
TOTAL CLERICAL WORKERS	25,131	28,210	3,079	5,308	8,387
Bookkeeping &/or Billing Machine Operators	48	54	6	9	15
Computer Operators	335	375	40	37	77
Key punch Operators	731	821	90	160	250
Peripheral EDP Equipment Operators	332	373	41	79	120
Proof Machine Operators	227	257	30	43	73
Duplicating Machine Operators	59	66	7	14	21
Coin Machine Operators &/or Currency Sorters	8	9	1	2	3
All Other Office Machine Operators	221	249	28	64	92
Stenographers	155	173	18	33	51
Accounting Clerks	1,086	1,218	132	215	347
Actuarial Clerks	11	12	1	2	3
Bookkeepers, Hand	590	652	62	117	179
Brokerage Clerks	70	79	9	15	24
Cancellation Clerks	16	18	2	3	5
Adjustment Clerks	232	262	30	51	81
Cashiers	124	139	15	26	41
Checking Clerks, Bank Records	104	118	14	23	37
Claims Adjusters	588	657	69	64	133
Claims Clerks	518	577	59	113	172
Collectors	582	658	76	88	164
Correspondence Clerks	63	71	8	14	22
Credit Reporters	47	53	6	10	16
File Clerks	620	696	76	172	248
Insurance Clerks	77	87	10	17	27
General Clerks	2,722	3,041	319	592	911
Securities Cashiers, Exchange	36	41	5	8	13
Mail Clerks	256	289	33	45	78
Margin Clerks	17	19	2	4	6
Messengers, Bank	10	11	1	1	2
New-Accounts Tellers	663	750	87	185	272
Order Clerks	55	62	7	12	19
Payroll &/or Timekeeping Clerks	92	103	11	17	28
Personnel Clerks	88	99	11	24	35
Policy-Change Clerks	185	206	21	40	61
Procurement Clerks	19	21	2	2	4
Purchase, Sales &/or Securities Clerks	16	18	2	3	5
Raters	426	478	52	93	145
Real Estate Clerks	95	103	8	20	28
Receptionists	281	310	29	74	103
Safe-Deposit Clerks	23	26	3	5	8
Secretaries	2,820	3,144	324	651	975
Statement Clerks	85	96	11	19	30
Statistical Clerks	33	37	4	7	11
Switchboard Operators	83	93	10	22	32
Switchboard Operators-Receptionists	255	283	28	67	95
Messengers	167	188	21	21	42
Tellers	3,162	3,576	414	708	1,122
Title Searchers	89	100	11	19	30
Transfer Clerks	11	12	1	2	3
Transit Clerks	22	25	3	4	7
Typists	925	1,038	113	241	354
Worksheet Clerks	142	161	19	31	50
Clerical Supervisors	1,413	1,592	179	174	353
Insurance Checkers	219	245	26	24	50
Credit Clerks	520	588	68	113	181
Mortgage Closing Clerks	97	110	13	21	34
Claims Examiners	440	495	55	96	151

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

MARICOPA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
Sorting Clerks, Bank	85	96	11	19	30
Loan Closers	497	562	65	108	173
All Other Office Clerical Workers	2,031	2,289	258	443	701
Production Clerks &/or Coordinators	24	26	2	3	5
Shipping &/or Receiving Clerks	73	81	8	7	15
Stock Clerks	77	86	9	9	18
All Other Plant Clerical Workers	33	36	3	3	6
TOTAL SALES WORKERS	3,624	4,008	384	546	930
Business Brokers	21	23	2	2	4
Real Estate Brokers	114	123	9	24	33
Sales Reps., Agents & Associates, Financial Services	296	334	38	41	79
Sales Reps., Agents & Associates, Real Estate	822	889	67	176	243
Sales Reps., Agents & Associates, Securities	354	400	46	49	95
Sales Reps., Agents & Associates, Insurance	1,648	1,836	188	195	383
Broker-&Market Operators, Commodities	24	27	3	3	6
All Other Sales Reps., Agents & Associates	342	373	31	56	87
All Other Sales Workers	3	3	0	0	0
TOTAL ALL OCCUPATIONS	47,422	52,886	5,464	8,537	14,001

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Natural & Math Scientists
Statisticians

All Other Professional Workers
Market Research Analysts
Appraisers (Exc. Art & Real Estate)
Architects (Exc. Landscape Architects)
Hospital Insurance Representatives
Law Clerks
Physicians &/or Surgeons
Building Inspectors, Fire Insurance

TECHNICAL WORKERS

All Other Technical Workers
Mathematical Technicians
Technical Assistants, Library

SERVICE WORKERS

All Other Service Workers
Lifeguards

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Mechanics, Refrigeration/Air Conditioning

All Other Skilled Craft Workers
Compositors &/or Typesetters
Plumbers &/or Pipefitters
Stationary Engineers

All Other Operatives & Semiskilled Workers
Truck Drivers
Inspectors

CLERICAL WORKERS

All Other Office Machine Operators
Addressing Machine Operators
Inserting &/or Labeling Machine Operators

All Other Office Clerical Workers
Dividend Clerks
Trade Recorders

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

MOHAVE COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	130	161	31	19	50
TOTAL PROFESSIONAL WORKERS	45	55	10	6	16
Title Examiners &/or Abstractors	9	11	2	2	4
All Other Professional Workers	36	44	8	4	12
TOTAL SERVICE WORKERS	3	4	1	1	2
All Janitors, Porters & Cleaners	3	4	1	1	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	28	33	5	3	8
Maintenance Repairers, General Utility	13	15	2	1	3
All Operatives & Semiskilled Workers	9	11	2	1	3
All Laborers & Unskilled Workers	6	7	1	1	2
TOTAL CLERICAL WORKERS	356	447	91	78	169
All Office Machine Operators	7	10	3	0	3
Accounting Clerks	5	6	1	1	2
Bookkeepers, Hand	13	16	3	3	6
General Clerks	39	47	8	9	17
New-Accounts Tellers	18	23	5	5	10
Receptionists	8	10	2	2	4
Secretaries	63	78	15	15	30
Switchboard Operators-Receptionists	3	4	1	1	2
Tellers	105	135	30	24	54
Typists	6	7	1	2	3
Clerical Supervisors	23	29	6	3	9
Loan Closers	5	6	1	1	2
All Other Office Clerical Workers	61	76	15	12	27
TOTAL SALES WORKERS	93	109	16	18	34
Real Estate Brokers	8	9	1	2	3
Sales Reps., Agents & Associates, Real Estate	60	71	11	13	24
Sales Reps., Agents & Associates, Insurance	24	28	4	3	7
All Other Sales Reps., Agents & Associates	1	1	0	0	0
TOTAL ALL OCCUPATIONS	655	809	154	125	279

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
 Accountants & Auditors
 Credit Analysts
 Public Relations Practitioners
 Appraisers, Real Estate
 Underwriters (Exc. Life Ins. Sales Agents)

MAINTENANCE & PRODUCTION WORKERS

All Laborers & Unskilled Workers
 Gardeners & Groundskeepers

CLERICAL WORKERS

All Other Office Clerical Workers
 Claims Adjusters
 Claims Clerks
 Collectors
 File Clerks
 Policy-Change Clerks
 Raters
 Real Estate Clerks
 Statement Clerks
 Switchboard Operators
 Messengers
 Title Searchers
 Credit Clerks
 Mortgage Closing Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

NAVAJO COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	59	70	11	9	20
TOTAL PROFESSIONAL WORKERS	16	19	3	3	6
TOTAL SERVICE WORKERS	17	20	3	3	6
All Janitors, Porters & Cleaners	11	13	2	2	4
All Other Service Workers	6	7	1	1	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	8	9	1	1	2
TOTAL CLERICAL WORKERS	169	203	34	38	72
Accounting Clerks	3	4	1	1	2
Bookkeepers, Hand	7	8	1	1	2
General Clerks	15	18	3	3	6
New-Accounts Tellers	11	13	2	3	5
Secretaries	36	43	7	8	15
Switchboard Operators-Receptionists	3	4	1	1	2
Tellers	61	74	13	14	27
Clerical Supervisors	7	8	1	1	2
All Other Office Clerical Workers	26	31	5	6	11
TOTAL SALES WORKERS	23	25	2	4	6
Real Estate Brokers	4	4	0	1	1
Sales Reps., Agents & Associates, Real Estate	16	18	2	3	5
All Other Sales Reps., Agents & Associates	3	3	0	0	0
TOTAL ALL OCCUPATIONS	292	346	54	58	112

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

Accountants & Auditors
Credit Analysts
Title Examiners &/or Abstractors
Underwriters (Exc. Life Ins. Sales Agents)

SERVICE WORKERS

All Other Service Workers
Lifeguards

MAINTENANCE & PRODUCTION WORKERS

Maintenance Repairers, General Utility

CLERICAL WORKERS

All Other Office Clerical Workers
Collectors
File Clerks
Receptionists
Switchboard Operators
Title Searchers
Credit Clerks
Loan Closers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

PIMA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	1,711	1,896	185	246	431
TOTAL PROFESSIONAL WORKERS	577	641	64	92	156
Engineers	5	5	0	0	0
Financial Analysts	13	15	2	1	3
All Other Natural & Math Scientists	3	3	0	0	0
Purchasing Agents &/or Buyers	7	8	1	1	2
Accountants & Auditors	62	69	7	9	16
Credit Analysts, Chief	4	4	0	1	1
Credit Analysts	46	52	6	10	16
Personnel & Labor Relations Specialists	9	10	1	1	2
Public Relations Practitioners	8	9	1	1	2
Title Examiners &/or Abstractors	54	60	6	12	18
Appraisers, Real Estate	70	77	7	15	22
Broker's Floor Reps., Securities Traders/ Specialists	44	49	5	6	11
Claims Examiners	31	35	4	3	7
Underwriters (Exc. Life Ins. Sales Agents)	59	65	6	10	16
All Other Professional Workers	162	180	18	22	40
TOTAL TECHNICAL WORKERS	20	22	2	2	4
Computer Programmers	10	11	1	1	2
All Engineering Technicians	4	4	0	0	0
All Other Technical Workers	6	7	1	1	2
TOTAL SERVICE WORKERS	395	433	38	63	101
Janitors, Porters & Cleaners	11	12	1	2	3
Maids	53	58	5	13	18
All Other Janitors, Porters & Cleaners	151	165	14	27	41
Guards & Doorkeepers	71	78	7	4	11
Food Service Workers (Exc. Cashiers)	11	12	1	2	3
Supervisors, Nonworking-Service	59	65	6	7	13
All Other Service Workers	39	43	4	8	12
TOTAL MAINTENANCE & PRODUCTION WORKERS	604	660	56	79	135
Mechanics, Automotive	4	4	0	0	0
All Other Mechanics & Repairers	8	9	1	1	2
Carpenters	12	13	1	2	3
Supervisors, Nonworking	27	30	3	3	6
Maintenance Repairers, General Utility	256	280	24	24	48
Trades Helpers	15	16	1	2	3
Painters, Maintenance	15	16	1	2	3
Gardeners & Groundskeepers	192	210	18	37	55
All Other Skilled Craft Workers	25	27	2	2	4
All Other Operatives & Semiskilled Workers	18	20	2	2	4
All Other Laborers & Unskilled Workers	32	35	3	4	7
TOTAL CLERICAL WORKERS	4,128	4,603	475	887	1,362
Bookkeeping &/or Billing Machine Operators	35	39	4	7	11
Computer Operators	18	20	2	2	4
Keypunch Operators	38	43	5	8	13
Peripheral EDP Equipment Operators	17	19	2	4	6
All Other Office Machine Operators	11	12	1	3	4
Stenographers	15	17	2	3	5
Accounting Clerks	136	151	15	27	42
Bookkeepers, Hand	131	145	14	26	40
Cashiers	7	8	1	1	2
Claims Adjusters	38	42	4	4	8
Claims Clerks	13	14	1	3	4
Collectors	74	83	9	11	20
File Clerks	55	61	6	15	21
Insurance Clerks	10	11	1	2	3

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

PIMA COUNTY (CONTD.)

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
General Clerks	425	471	46	92	138
Mail Clerks	19	21	2	3	5
New-Accounts Tellers	168	188	20	47	67
Payroll &/or Timekeeping Clerks	7	8	1	1	2
Personnel Clerks	9	10	1	3	4
Policy-Change Clerks	19	21	2	4	6
Procurement Clerks	5	6	1	1	2
Raters	47	51	4	10	14
Real Estate Clerks	28	31	3	6	9
Receptionists	55	61	6	14	20
Safe-Deposit Clerks	22	25	3	5	8
Secretaries	656	728	72	151	223
Statement Clerks	9	10	1	2	3
Switchboard Operators	14	16	2	4	6
Switchboard Operators-Receptionists	73	81	8	19	27
Messengers	21	23	2	3	5
Tellers	1,157	1,298	141	258	399
Title Searchers	43	48	5	9	14
Typists	89	99	10	23	33
Clerical Supervisors	225	252	27	28	55
Credit Clerks	92	103	11	20	31
Mortgage Closing Clerks	38	43	5	8	13
Claims Examiners	23	25	2	5	7
Loan Closers	94	105	11	20	31
All Other Office Clerical Workers	169	188	19	32	51
All Other Plant Clerical Workers	23	26	3	3	6
TOTAL SALES WORKERS	1,177	1,296	119	209	328
Business Brokers	14	15	1	3	4
Real Estate Brokers	70	77	7	15	22
Sales Reps., Agents & Associates, Financial Services	16	18	2	2	4
Sales Reps., Agents & Associates, Real Estate	578	633	55	124	179
Sales Reps., Agents & Associates, Securities	82	92	10	11	21
Sales Reps., Agents & Associates, Insurance	292	324	32	34	66
All Other Sales Reps., Agents & Associates	125	137	12	20	32
TOTAL ALL OCCUPATIONS	8,612	9,551	939	1,578	2,517

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Natural & Math Scientists
Physical Scientists

All Other Professional Workers
Systems Analysts, EDP
Lawyers
Special Agents, Insurance

TECHNICAL WORKERS

All Other Technical Workers
Engineering Technicians
Drafters

MAINTENANCE & PRODUCTION WORKERS

All Other Mechanics & Repairers
Mechanics, Maintenance

All Other Skilled Craft Workers
Stationary Engineers

All Other Operatives & Semiskilled Workers
Inspectors

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

PIMA COUNTY (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

CLERICAL WORKERS

All Other Office Machine Operators
Proof Machine Operators

All Other Office Clerical Workers
Brokerage Clerks
Adjustment Clerks
Checking Clerks, Bank Records
Credit Reporters
Securities Cashiers, Exchange
Trade Recorders
Margin Clerks

CLERICAL WORKERS (CONTD.)

Messengers, Bank
Order Clerks
Statistical Clerks
Worksheet Clerks
Insurance Checkers
Sorting Clerks, Bank

All Other Plant Clerical Workers
Production Clerks &/or Coordinators
Shipping &/or Receiving Clerks
Stock Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

PINAL COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	139	169	30	20	50
TOTAL PROFESSIONAL WORKERS	26	31	5	4	9
Accountants & Auditors	10	12	2	2	4
All Other Professional Workers	16	19	3	2	5
TOTAL SERVICE WORKERS	15	18	3	3	6
All Janitors, Porters & Cleaners	9	11	2	2	4
All Other Service Workers	6	7	1	1	2
TOTAL MAINTENANCE & PRODUCTION WORKERS	40	45	5	5	10
Maintenance Repairers, General Utility	15	17	2	1	3
Gardeners & Groundskeepers	13	15	2	3	5
All Other Skilled Craft Workers	9	10	1	1	2
All Other Laborers & Unskilled Workers	3	3	0	0	0
TOTAL CLERICAL WORKERS	304	371	67	65	132
All Office Machine Operators	7	8	1	1	2
Accounting Clerks	5	6	1	1	2
Bookkeepers, Hand	16	19	3	3	6
General Clerks, Office	71	84	13	16	29
New-Accounts Tellers	16	20	4	5	9
Receptionists	4	5	1	1	2
Secretaries	33	40	7	8	15
Tellers	96	120	24	22	46
Typists	9	11	2	2	4
Clerical Supervisors	13	16	3	2	5
Loan Closers	9	11	2	2	4
All Other Office Clerical Workers	25	31	6	2	8
TOTAL SALES WORKERS	43	49	6	8	14
Sales Reps., Agents & Associates, Real Estate	37	42	5	8	13
All Other Sales Reps., Agents & Associates	6	7	1	0	1
TOTAL ALL OCCUPATIONS	567	683	116	105	221

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Credit Analysts
Public Relations Practitioners
Title Examiners &/or Abstractors
Special Agents, Insurance
Underwriters (Exc. Life Ins. Sales Agents)

SERVICE WORKERS

All Other Service Workers
Guards & Doorkeepers

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Carpenters
All Other Laborers & Unskilled Workers
Trades Helpers

CLERICAL WORKERS

All Other Office Clerical Workers
Collectors
Payroll &/or Timekeeping Clerks
Raters
Real Estate Clerks
Safe-Deposit Clerks
Statement Clerks
Switchboard Operators
Title Searchers
Credit Clerks
Mortgage Closing Clerks
Sorting Clerks, Bank

SALES WORKERS

All Other Sales Reps., Agents &/or Associates
Real Estate Brokers
Sales Reps., Agents & Associates, Insurance

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

SANTA CRUZ COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	60	71	11	9	20
TOTAL PROFESSIONAL WORKERS	14	17	3	2	5
TOTAL SERVICE WORKERS	8	8	0	0	0
All Janitors, Porters & Cleaners	4	4	0	0	0
All Other Service Workers	4	4	0	0	0
TOTAL MAINTENANCE & PRODUCTION WORKERS	10	11	1	0	1
All Skilled Craft Workers	6	7	1	0	1
All Laborers & Unskilled Workers	4	4	0	0	0
TOTAL CLERICAL WORKERS	128	153	25	26	51
All Office Machine Operators	1	1	0	0	0
General Clerks, Office	14	17	3	3	6
Secretaries	23	27	4	5	9
Tellers	61	75	14	14	28
All Other Office Clerical Workers	29	33	4	4	8
TOTAL SALES WORKERS	22	25	3	3	6
Sales Reps., Agents & Associates, Real Estate	9	10	1	1	2
Sales Reps., Agents & Associates, Insurance	7	8	1	1	2
All Other Sales Reps., Agents & Associates	6	7	1	1	2
TOTAL ALL OCCUPATIONS	242	285	43	40	83

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

Accountants & Auditors
Credit Analysts
Investigators, Insurance
Title Examiners &/or Abstractors
Claims Examiners

MAINTENANCE & PRODUCTION WORKERS

All Skilled Craft Workers
Carpenters
Maintenance Repairers, General Utility

SALES WORKERS

All Other Sales Reps., Agents &/or Associates
Real Estate Brokers

CLERICAL WORKERS

All Other Office Clerical Workers
Accounting Clerks
Bookkeepers, Hand
Claims Adjusters
Collectors
File Clerks
Mail Clerks
New-Account Tellers
Raters
Switchboard Operators
Switchboard Operators-Receptionists
Typists
Clerical Supervisors
Loan Closers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

YAVAPAI COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	150	179	29	22	51
TOTAL PROFESSIONAL WORKERS	47	58	11	9	20
Title Examiners &/or Abstractors	8	10	2	2	4
All Other Professional Workers	39	48	9	7	16
TOTAL SERVICE WORKERS	40	46	6	6	12
Maids	6	7	1	1	2
All Other Janitors, Porters & Cleaners	12	14	2	2	4
Food Service Workers (Exc. Cashiers)	19	22	3	3	6
All Other Service Workers	3	3	0	0	0
TOTAL MAINTENANCE & PRODUCTION WORKERS	56	64	8	7	15
Maintenance Repairers, General Utility	11	12	1	1	2
Gardeners & Groundskeepers	28	32	4	5	9
All Other Skilled Craft Workers	4	5	1	0	1
All Other Operatives & Semiskilled Workers	10	12	2	1	3
All Other Laborers & Unskilled Workers	3	3	0	0	0
TOTAL CLERICAL WORKERS	348	420	72	77	149
Bookkeepers, Hand	13	15	2	3	5
General Clerks, Office	61	73	12	13	25
New-Accounts Tellers	20	25	5	6	11
Real Estate Clerks	3	3	0	1	1
Receptionists	9	11	2	2	4
Secretaries	61	73	12	14	26
Tellers	125	155	30	29	59
Clerical Supervisors	13	16	3	2	5
All Other Office Clerical Workers	43	49	6	7	13
TOTAL SALES WORKERS	85	98	13	15	28
Real Estate Brokers	6	7	1	1	2
Sales Reps., Agents & Associates, Real Estate	50	57	7	11	18
Sales Reps., Agents & Associates, Insurance	27	32	5	3	8
All Other Sales Reps., Agents & Associates	2	2	0	0	0
TOTAL ALL OCCUPATIONS	726	865	139	136	275

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
Accountants & Auditors
Credit Analysts
Appraisers, Real Estate
Underwriters

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
Supervisors, Nonworking
All Other Operatives & Semiskilled Workers
Truck Drivers

CLERICAL WORKERS

All Other Office Clerical Workers
Accounting Clerks
Cashiers
Checking Clerks, Bank Records
Claims Clerks
Collectors
File Clerks
Insurance Clerks
Policy-Change Clerks
Switchboard Operators
Switchboard Operators-Receptionists
Title Searchers
Typists
Insurance Checkers
Credit Clerks
Loan Closers

ESTIMATED EMPLOYMENT AND JOB OPENINGS
FINANCE, INSURANCE AND REAL ESTATE

YUMA COUNTY

	Estimated 1981 Employment	Projected 1985 Employment	Job Openings Due to Growth 1981-1985	Job Openings Due to Separations 1981-1985	Total Job Openings 1981-1985
TOTAL MANAGERS & OFFICERS	168	199	31	25	56
TOTAL PROFESSIONAL WORKERS	68	82	14	12	26
Credit Analysts	17	21	4	4	8
Underwriters (Exc. Life Ins. Sales Agents)	12	14	2	2	4
All Other Professional Workers	39	47	8	6	14
TOTAL SERVICE WORKERS	71	81	10	14	24
Janitors, Porters & Cleaners	5	6	1	1	2
Maids	12	14	2	3	5
All Other Janitors, Porters & Cleaners	14	16	2	3	5
All Other Service Workers	40	45	5	7	12
TOTAL MAINTENANCE & PRODUCTION WORKERS	63	72	9	9	18
Maintenance Repairers, General Utility	19	22	3	2	5
Gardeners & Groundskeepers	21	24	3	4	7
All Other Skilled Craft Workers	7	8	1	1	2
All Other Laborers & Unskilled Workers	16	18	2	2	4
TOTAL CLERICAL WORKERS	393	479	86	86	172
All Office Machine Operators	3	3	0	0	0
Accounting Clerks	12	14	2	2	4
Bookkeepers, Hand	16	19	3	3	6
Collectors	11	14	3	2	5
General Clerks, Office	56	63	12	12	24
New-Accounts Tellers	15	19	4	4	8
Secretaries	68	81	13	16	29
Tellers	148	184	36	34	70
Typists	11	13	2	3	5
Clerical Supervisors	15	19	4	2	6
Credit Clerks	11	14	3	2	5
Loan Closers	8	10	2	2	4
All Other Office Clerical Workers	19	21	2	4	6
TOTAL SALES WORKERS	54	62	8	10	18
Sales Reps., Agents & Associates, Real Estate	31	35	4	7	11
Sales Reps., Agents & Associates, Insurance	20	24	4	2	6
All Other Sales Workers	3	3	0	1	1
TOTAL ALL OCCUPATIONS	817	975	158	156	314

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL WORKERS

All Other Professional Workers
 Investigators, Insurance
 Title Examiners &/or Adjusters
 Appraisers, Real Estate
 Special Agents, Insurance
 Claims Examiners

SERVICE WORKERS

All Other Service Workers
 Food Service Workers (Exc. Cashiers)

MAINTENANCE & PRODUCTION WORKERS

All Other Skilled Craft Workers
 Supervisors, Nonworking

CLERICAL WORKERS

All Other Clerical Workers
 Claims Adjusters
 File Clerks
 Receptionists
 Safe-Deposit Clerks
 Statistical Clerks
 Switchboard Operators
 Switchboard Operators-Receptionists
 Title Searchers
 Mortgage Closing Clerks
 Real Estate Brokers

METHODOLOGY

Limitations of the Data

The projection methods do not account for cyclical, seasonal, and such factors as the sudden opening and closing of large establishments. Caution is advised in the use of employment forecast data for industries with limited employment - especially in the smaller counties. The establishment or closing of a single firm could have a profound effect on a county's employment and demand.

The occupational data in this publication refer only to employees who earned a wage or salary. Self-employed and unpaid family workers are not represented in the statistics.

Sample Selection and Response Rate

Occupational estimates for finance, insurance, and real estate were developed from a survey of employers throughout the state. Employers who were asked to participate in the survey were selected from a master employer file of firms doing business in Arizona, using standardized sampling techniques. A sample of establishments employing 4-99 employees and all establishments having 100 or more employees were surveyed. The entire sample was composed of 1,615 firms with a usable response rate of 88 percent. Firms responding accounted for 95 percent of the industry's employment.

Employment Projections

Industry employment was projected using regression analysis and was adjusted to reflect recent industry developments. The 1985 occupational employment was calculated by applying staffing pattern ratios (as determined by the survey) to the industry projections.

Job Openings

The difference between 1981 and 1985 employment for each occupation represents expected job openings due to growth. Job openings due to separation from the labor force were calculated by interpolating 1970 and 1985 separation rates for each occupation¹ and applying them to the occupational employment projections. "Total job openings" is the sum of openings due to growth and separations. These data do not include openings resulting from turnover, i.e., openings created when a worker changes jobs.

¹"Tomorrow's Manpower Needs," Supplement No. 4, BLS, 1974, pp. 11-16.

LABOR MARKET INFORMATION PUBLICATIONS
OCCUPATIONAL EMPLOYMENT STATISTICS
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In cooperation with the Bureau of Labor Statistics, U.S. Department of Labor. Preparation of this document was financed in part through the Comprehensive Employment and Training Act (P.L. 93-203), Governor's Special Grant, from the U.S. Department of Labor.
